TSG-RAN Meeting #6 *TSGRP#6(99)654*
Nice, France, 13 – 15 December 1999

Title: **Agreed CRs of category "C" (Modification) and "F" (Correction) to TS 25.331 v"Intermediate", 1st set**

Source: **TSG-RAN WG2**

Agenda item: **5.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R2-99h08	agreed	25.331	005	1	Introduction of Information Element	C	interm	3.1.0
R2-99h58	agreed	25.331	007	1	RRC parameters for SSDT	F	interm	3.1.0
R2-99h17	agreed	25.331	019	1	Algorithm for CTCF Calculation	C	interm	3.1.0
R2-99h21	agreed	25.331	027	1	Parameters for CELL UPDATE	C	interm	3.1.0
R2-99h22	agreed	25.331	029	1	RRC Initialisation Information	C	interm	3.1.0
R2-99j87	agreed	25.331	036	2	Compressed mode parameters with	C	interm	3.1.0
R2-99h24	agreed	25.331	044	1	Gated transmission of DPCCH	F	interm	3.1.0
R2-99h27	agreed	25.331	047	1	Editorial Corrections and Alignments	F	interm	3.1.0
R2-99h28	agreed	25.331	048	1	Information elements for TDD shared	F	interm	3.1.0
R2-99h31	agreed	25.331	052		New and corrected CPCH	C	interm	3.1.0
R2-99j86	agreed	25.331	053	2	Compressed mode parameters	C	interm	3.1.0
R2-99h55	agreed	25.331	054		Transport format combination set	C	interm	3.1.0
R2-99h80	agreed	25.331	056		Corrections and Alignments of the	F	interm	3.1.0
R2-99i08	agreed	25.331	064		RRC procedure interactions	C	interm	3.1.0
R2-99j97	agreed	25.331	066	1	Transfer of UE capabilities	C	interm	3.1.0
R2-99i20	agreed	25.331	074		CN information elements	C	interm	3.1.0
R2-99i22	agreed	25.331	076		UE information elements	F	interm	3.1.0
R2-99i24	agreed	25.331	078		Other information elements	C	interm	3.1.0
R2-99i47	agreed	25.331	080		Content of Measurement Control	F	interm	3.1.0
R2-99i48	agreed	25.331	081		RRC Information Elements to	F	interm	3.1.0

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***Document* (R2-99h08)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	CR	005r1	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: Introduction of Information Element for Power Control Algorithm

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: Alignment with WG1 specifications concerning the used Power Control Algorithm

Clauses affected: 10.2.6.9

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

Range Bound	Explanation
MaxDPDCHcount	Maximum number of DPDCH's

10.2.6.9 Uplink DPCH power control info

Parameters used by UE to set DPCH initial output power and to use for closed-loop power control.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Constant value				Necessity is ffs
UL interference				Necessity is ffs
~~TPC step size~~	~~M~~		~~Enumerated (1dB, 2dB)~~	~~Must be 1dB if power control algorithm = 2~~
Power Control Algorithm	M		Enumerated (algorithm 1 or algorithm 2)	Specifies algorithm to be used by UE to interpret TPC commands
TPC step size	C-algorithm1		Enumerated (1dB, 2dB)	
TDD				
UL target SIR	M			

Condition	Explanation
C-algorithm1	This IE shall be present when the PC algorithm equals algorithm 1

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Document (R2-99h58)
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CHANGE REQUEST

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25.331	CR	007r1	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6 *List expected approval meeting # here ↑*	for approval	X	Strategic		*(for SMG use only)*
	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-22

Subject: RRC parameters for SSDT

Work item:

Category: *(only one category Shall be marked With an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

1. The inclusion of parameters necessary for the operation of SSDT is not consistent between messages.
2. The ffs for the SSDT parameters in some of the messages can be removed, sincethe condition for the ffs does not exist anymore

Clauses affected:
10.1.x.x RRC messages
10.2.x.x Information Elements functional definitions

Other specs Affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:


help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.1 Radio Resource Control messages

10.1.1 RRC Connection Mobility Messages

10.1.1.1 ACTIVE SET UPDATE (FDD only)

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	O			New U-RNTI
Activation time	O			
Ciphering mode info	O			
CN information elements				
PLMN identity	O			(Note3)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note3)
NAS system info	O			(Note3)
Phy CH information elements				
Maximum allowed UL TX power	O			
Radio link addition information		0 to <MaxAddRLcount>		Radio link addition information required for each RL to add
Primary CCPCH info	M			Note 1
~~SSDT cell identity~~	~~C - ifSSDT~~			
Downlink DPCH info	M			
Radio link removal information		0 to <MaxDelRLcount>		Radio link removal information required for each RL to remove
Primary CCPCH info	M			Note 1
Gated Transmission Control Info	O			FFS, Note 2
SSDT indicator	O			

Condition	Explanation
~~*IfSSDT*~~	~~This IE is only sent when SSDT is being used and a new radio link is added~~

Range bound	Explanation

MaxAddRLcount	Maximum number of radio links which can be added
MaxDelRLcount	Maximum number of radio links which can be removed/deleted

Note 1: If it is assumed that primary CCPCH downlink scrambling code is always allocated with sufficient reuse distances, primary CCPCH downlink scrambling code will be enough for designating the different radio links.

*Note 2: The activation time should be present when the Gated Transmission control info is present in this message.*Note3: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.

10.1.1.2 ACTIVE SET UPDATE COMPLETE (FDD only)

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UE→UTRAN

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
Phy CH information elements				
~~SSDT indicator~~	~~O~~			

10.1.1.5 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Ciphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
NAS system info	O			(Note1,2)
Physical CH information elements (FFS Note 5)				
Frequency info	O (FFS)			
Uplink radio resources				
Uplink DPCH power control info	O (FFS)			
CHOICE channel requirement				
Uplink DPCH info	O (FFS)			
PRACH info (for RACH)	O (FFS)			
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)	O (FFS)			
Downlink radio resources				
DL information per radio link		0 to <maxNoRLs>		
Primary CCPCH info	O (FFS)			
Downlink DPCH info	O (FFS)			
Secondary CCPCH info	O (FFS)			
				Note 3
CHOICE *mode*				
FDD				
~~SSDT indicator~~	~~O (FFS)~~			
CPCH SET Info	O (FFS)			UL/DL radio resource for CPCH control (Note4)
Gated Transmission Control info	O (FFS)			
Default DPCH Offset Value	O (FFS)			

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Range Bound	**Explanation**
MaxNoRLs	Maximum number of radio links
MaxNoCN domains	Maximum number of CN domains

Condition	**Explanation**
AM_RLC_recon	This IE is only sent when the UTRAN requests AM RLC re-configuration

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]

[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

Note 3: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

Note 4: How to map UL and DL radio resource in the message is FFS.

Note 5: The inclusion of any physical channel information elements requires further study

10.1.1.6 HANDOVER COMMAND

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
CHOICE *mode*				
TDD				
New C-RNTI				
Ciphering mode info	O			
CN information elements	O			
PLMN identity	O			(Note2)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note2)
NAS system info	O			(Note2)
Phy CH information elements				
Frequency info	M			
Maximum allowed UL TX power	O			
Uplink radio resources				
UL DPCH power control info	M			
UL DPCH info	M			
Downlink radio resources				
Link specific information		1 to <MaxHoRLcount>		Provide information for each DL radio link. (Note 1)
Primary CCPCH info	M			
DL DPCH info	M			
CHOICE *mode*				
FDD				
SSDT indicator	O			
~~SSDT Cell ID~~	~~C ifSSDT~~			~~FFS~~
TDD				
Uplink Timing Advance	O			

Condition	Explanation
~~*IfSSDT*~~	~~This IE is only sent when SSDT is used~~

Range Bound	Explanation
MaxHoRLcount	Maximum number of DL radio links which can be established on handover

Note1: The possibility to request the establishment of several radio links simultaneously with this message is FFS.

Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.

10.1.1.7 HANDOVER COMPLETE

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
Phy CH information elements				
CHOICE *mode*				
TDD				
~~SSDT indicator~~	~~O~~			

10.1.4 RRC Connection Establishment and maintenance messages

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

<Functional description of this message to be included here>

RLC-SAP: UM

Logical channel: CCCH, DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Activation time	O			
CN information elements				
PLMN identity	O			(Note1)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1)
NAS system info	O			(Note1)

RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB multiplexing info	M			
Transport Channel Information Elements				
TFCS	O			For uplink TFCSs
TFCS	O			For downlink TFCSs
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			For TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPDCH info				
PRACH info				
Downlink radio resource information				
Downlink information		0 to <MaxRlcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPDCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			~~FFS~~
~~SSDT Cell ID~~	~~C ifSSDT~~			~~FFS~~
CPCH SET info	O			UL/DL radio resource for

				CPCH control (Note3)
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

[Note1: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

[Note 3: How to map UL and DL radio resource in the message is FFS.]

Condition	**Explanation**
DRAC	These information elements are only sent for transport channels which use the DRAC procedure
~~*If SSDT*~~	~~This IE is sent only when SSDT is to be used~~

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Range Bound	**Explanation**
MaxNoCN domains	Maximum number of CN domains

MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure
MaxRLcount	Maximum number of radio links

10.1.4.7 RRC CONNECTION SETUP

This message is used by the network to accept the establishment of an RRC connection for an UE, including assignment of signalling link information, transport channel information and optionally physical channel information.

RLC-SAP: UM

Logical channel: CCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
U-RNTI	M			
C-RNTI	O			Only if assigned to a common transport channel
Activation time	O			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity	M			Indicates the signalling link
Signalling link type	M			
RB mapping info	M			For the signalling link
TrCH information elements				
TFCS	O			Uplink TFCS
TFCS	O			Downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			
Uplink transport channel information		0 to <MaxULTrCHCount>		Send transport channel information for each new Uplink transport channel
Transport channel identity	M			
TFS	M			
Downlink transport channel information		0 to <MaxDLTrCHCount>		Send transport channel information for each new downlink transport channel
Transport channel identity	M			
TFS	M			
Transparent mode signalling info	C if TM_DCH	0 or 1		
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				

SSDT indicator	O			~~FFS~~
~~SSDT Cell ID~~	~~C ifSSDT~~			~~FFS~~
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O, FFS			Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
~~*IfSSDT*~~	~~This IE is sent only when SSDT is to be used~~
IfTM_DCH	This information is only sent if a DCH carrying transparent mode DCCH information is used, e.g. to send transport format combination commands.

Range Bound	**Explanation**
MaxULTrCHCoun	Maximum number of new uplink transport channels
MaxDLTrCHCount	Maximum number of new downlink transport channels
MaxRLcoun	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.4.8 RRC CONNECTION SETUP COMPLETE

This message confirms the establishment of the RRC Connection by the UE.

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Ciphering hyperframe number	M			
UE radio capability	M			
Phy CH information elements				
CHOICE *mode*				
FDD				
~~SSDT indicator~~	~~O~~			~~FFS~~

10.1.5 Radio Bearer control messages

10.1.5.1 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				For FACH
CHOICE *mode*				
FDD				
SSDT indicator	O			~~FFS~~
~~SSDT Cell ID~~	~~C ifSSDT~~			~~FFS~~
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	Explanation
~~*IfSSDT*~~	~~This IE is only sent when SSDT is used and when a new DCH is being activated~~

RACH/FACH	This information element is only included in the sent message when using RACH/FACH

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

10.1.5.2 PHYSICAL CHANNEL RECONFIGURATION COMPLETE

This message is sent from the UE when a physical channel reconfiguration has been done.

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
Phy CH information elements				
CHOICE *mode*				
FDD				
~~SSDT indicator~~	~~O~~			~~Necessity is FFS~~

10.1.5.4 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB mapping info	O			
RB suspend/resume	O			Not applicable to the signalling bearer.
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE channel requirement	O			

Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			~~FFS~~
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.5 RADIO BEARER RECONFIGURATION COMPLETE

This message is sent from the UE when a RB and signalling link reconfiguration has been done.

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
Phy CH information elements				
CHOICE *mode*				
FDD				
~~SSDT indicator~~	~~O~~			~~FFS~~

10.1.5.7 RADIO BEARER RELEASE

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity		1 to <MaxRelRBcount>		
RB identity		0 to <MaxOtherRBcount>		
RB mapping info	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddFFSTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddFFSTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		Editor : this limit should probably also be MaxReconAddFFSTrCH
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
Gated Transmission Control	O, FFS			Note 3

info				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
TDD				
Uplink Timing Advance	O			
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
Choice *mode*				
FDD				
SSDT indicator				

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxDelRBcount	Maximum number of RBs to be released/deleted
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddFFSTrCH	Maximum number of transport channels to add (FFS) and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**

Uplink DPCH info	
PRACH Info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.10 RADIO BEARER SETUP

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
CN information elements				
NAS binding info	M			
CN domain identity				
UE Information elements				
Activation time	O			
New C-RNTI	C – RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
Information for new RBs		1 to <MaxNewRBcount>		
RB identity	M			
RLC info	M			
RB mapping info	M			
Information for other RB's affected by this message		0 to <MaxOtherRBcount>		
RB identity	M			
RB mapping info	M			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		editor should this be FFS also?
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		FFS
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			

Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			~~FFS~~
~~SSDT Cell ID~~	~~C ifSSDT~~			~~FFS~~
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
~~*IfSSDT*~~	~~This IE is only sent when SSDT is used and when a new DCH is being activated~~

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links

MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddcount	Maximum number of Transport CHannels reconfigured or added
MaxNewRBcount	Maximum number of RBs that could be setup with this message
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.11 RADIO BEARER SETUP COMPLETE

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
Phy CH information elements				
CHOICE *mode*				
FDD				
~~SSDT indicator~~	~~O~~			~~FFS~~

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
DRAC information	C DRAC	1 to <MaxReconTrCHDRAC>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
	O			
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH	O			

compressed mode info				
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			~~FFS~~
~~SSDT Cell ID~~	~~C ifSSDT~~			~~FFS~~
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
~~*IfSSDT*~~	~~This IE is only sent when SSDT is used and when a new DCH is being activated~~
RACH/FACH	This information element is only sent when using RACH/FACH

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up
MaxReconcount	Maximum number of Transport CHannels reconfigured
MaxReconTrCHDRAC	Maximum number of Transport CHannels which are controlled by DRAC and which are reconfigured

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.14 TRANSPORT CHANNEL RECONFIGURATION COMPLETE

This message is sent from the UE when a transport channel reconfiguration has been done.

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
Phy CH information elements				
CHOICE *mode*				
FDD				
~~SSDT indicator~~	~~O~~			~~FFS~~

Note: The usage of this message for indicating the cell the UE will select in the DCH->RACH/FACH case, is FFS.

10.2 Information element functional definitions

10.2.6 Physical CH Information elements

10.2.6.10 Downlink DPCH info

Information Element/Group name	**Presence**	**Range**	**IE type and reference**	**Semantics description**
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer (0..14)	
DL channelization code		1 to <maxChan count>		Channelization codes to be used in the downlink for DPCH
Spreading factor	M		Enumerated(4, 16, 32, 64, 128, 256, 512)	
Code number	M		Integer(0..m axCodeNum)	
Fixed or Flexible Position	M		Enumerated (Fixed, Flexible)	
TFCI existence	M		Boolean	
Number of bits for Pilot bits	C-SF		Enumerated (2,4,8 bits)	
STTD Indicator	C-STTD			
SSDT Cell Id	O			
TDD				
DPCH Activation Time	O			Farme number start of allocation period (the Superframe offset can be derived)
Duration	O			Total number of frames
Repetition period	O			Repetition period of the DPCH in the 72 Superframe
Repetition length	O			Length of the allocation for each repetition
TFCI presence	O			Coding for a TFCI field in a DPCH
DPCH channelisation code	M			SF of the channelisation code of the data part for each DPCH
Timeslot	M			Timeslot of DPCH for each DPCH
Midamble type	O			Short or long, for each time slot, for each DPCH
Midamble shift	M			Midamble shift for each timeslot for each DPCH
DPCH activation time	O			Frame number start of allocation (the Superframe OFFset can be derived) for each timeslot for each DPCH

Condition	Explanation
STTD	This IE is only sent if STTD is applied
SF	This IE is only sent if SF=128 or 256 is applied. If SF=256, value is 2,4 or 8 If SF=128, value is 4 or 8

Range Bound	Explanation
MaxChancount	Maximum number of channelization codes used for DL DPCH
MaxCodeNum	Maximum number of codes for one spreading factor (SF) is equal to SF-1.

10.2.6.12 SSDT indicator (FDD only)

This information element indicates the status (e.g. initiated/terminated) of the Site Selection

Diversity Transmit power control (SSDT). ~~In the direction UTRAN to UE it~~It is used to change the SSDT status. ~~In the direction UE to UTRAN it is used to confirm the SSDT status by the UE.~~ The parameter 'code word set' indicates how cell identities are coded (using many bits or few, values are long, medium, or short).

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
~~D~~ S field	M		Enumerated (1, 2 bits)	
Code Word Set	M		Enumerated (long, medium, short, SSDT off)	

Note: These parameters shall be set optinally associated with DL DPCH info but not for each RL.

10.2.6.13 SSDT cell identity (FDD only)

This IE is used to associate a cell identity with a given radio link

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Temporary id	M		Enumerated (a, b, …, h)	

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Document **(R2-99h17)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	**CR**	**019r1**	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	For approval	X	strategic		*(for SMG use only)*
list expected approval meeting # here ↑		for information		Non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [ ] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: Algorithm for CTCF Calculation

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: This CR proposes to add clear definition for CTCF calculation.

Clauses affected: 14.6

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

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14.6 Calculated Transport Format Combination

The Calculated Transport Format Combination (CTFC) is a tool for efficient signalling of transport format combinations.
Let *I* be the number of transport channels that are included in the transport format combination. Each transport channel $TrCH_i$, *i* = 1, 2, …, *I*, has L_i transport formats, i.e. the transport format indicator TFI_i can take L_i values, $TFI_i \in \{0,1,2,...,L_i - 1\}$.

Define $P_i = \prod_{j=0}^{i-1} L_j$ ***, where*** **i = 1, 2, …, I,** ***and*** $L_0 = 1$.

Let TFC(TFI_1, TFI_2, …, TFI_I) be the transport format combination for which $TrCH_1$ has transport format TFI_1, $TrCH_2$ has transport format TFI_2, etc. The corresponding CTFC(TFI_1, TFI_2, …, TFI_I) is then computed as:

$$CTFC(TFI_1, TFI_2, \ldots, TFI_I) = \sum_{i=1}^{I} TFI_i \cdot P_i .$$

For dedicated CH, “I” in “TrCHi” is numbered from the smallest number of TrCH identity for DCH in an ascendant order.

For downlink common CH, “I” in “TrCHi” is numbered in a listed order in a SYSTEM INFORMATION message.

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***Document* (R2-99h21)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	CR	027r1	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	Strategic		(for SMG use only)
list expected approval meeting # here ↑		For information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: Parameters for CELL UPDATE CONFIRM message

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: It is proposed to remove dedicated CH information from CELL UPDATE CONFIRM message. In addition, “Maximum allowed uplink power” is proposed to add as an option to limit the maximum uplink power of the UE in its cell.

Clauses affected: 10.1.1.5

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.1.1.5 CELL UPDATE CONFIRM ~~(FDD only)~~

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.
RLC-SAP: UM
Logical channel: DCCH
Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	O			New U-RNTI
C-RNTI	O			New C-RNTI
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Ciphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
NAS system info	O			(Note1,2)
Physical CH information elements ~~(FFS Note 5)~~				
~~Frequency info~~	~~O (FFS)~~			
Maximum allowed ULTX power	O			
~~Uplink radio resources~~				
~~Uplink DPCH power control info~~	~~O (FFS)~~			
~~CHOICE channel requirement~~				
~~Uplink DPCH info~~	~~O (FFS)~~			
PRACH info (for RACH)	O ~~(FFS)~~			
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)	O (FFS)			
~~Downlink radio resources~~				
~~DL information per radio link~~		~~0 to <maxNoRLs>~~		
CHOICE *mode*				
FDD				
Primary C~~C~~PICH info	O ~~(FFS)~~			
TDD				
Primary CCPCH info	O			
~~Downlink DPCH info~~	~~O (FFS)~~			
Secondary CCPCH info	O ~~(FFS)~~			
				~~Note 3~~
~~CHOICE *mode*~~				
~~FDD~~				
~~SSDT indicator~~	~~O (FFS)~~			
~~CPCH SET Info~~	~~O (FFS)~~			~~UL/DL radio resource for CPCH control (Note4)~~
~~Gated Transmission Control Info~~	~~O (FFS)~~			
~~Default DPCH Offset Value~~	~~O (FFS)~~			

CHOICE *channel requirement*	**Condition underwhich the given channel *requirement* is chosen**
~~Uplink DPCH info~~	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Range Bound	**Explanation**
~~*MaxNoRLs*~~	~~Maximum number of radio links~~
MaxNoCN domains	Maximum number of CN domains

Condition	**Explanation**
AM_RLC_recon	This IE is only sent when the UTRAN requests AM RLC re-configuration

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]
[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]
~~Note 3: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.~~
~~Note 4: How to map UL and DL radio resource in the message is FFS.~~
~~Note 5: The inclusion of any physical channel information elements requires further study~~

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Document* *(R2-99h22)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	**CR**	**029r1**	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6 *List expected approval meeting # here ↑*	for approval	X	strategic		*(for SMG use only)*
	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: RRC Initialisation Information

Work item:

Category: *(only one category Shall be marked With an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: This contribution proposes to add necessary parameters for RRC Initialisation Information which is sent from source SRNC to target SRNC transparently via CN.

Clauses affected: 14.7.1

Other specs Affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

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14.7.1 RRC Initialisation Information

Information Element	Presence	Range	IE type and reference	Semantics description
UE Information elements				
U-RNTI				
C-RNTI				
~~Power Control Capability~~				
~~Code Resource Capability~~				
~~UE Mode Capability~~				
~~Transport CH support capability~~				
~~Ciphering Capability~~				
~~Macro Diversity Capability~~				
~~FAUSCH usage support~~				
UE radio Capability				
Ciphering mode info				
Other Information elements Inter System message (inter system classmark)				

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Document* *(R2-99j87)

CHANGE REQUEST

25.331 **CR** **036r2** Current Version: Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6 for approval [X] strategic [ ] *(for SMG use only)*
list expected approval meeting # here ↑ for information [ ] non-strategic [ ]

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 01.12.1999

Subject: Compressed mode parameters with gating

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[ ]	**Release:**	Phase 2	[ ]
A	Corresponds to a correction in an earlier release	[ ]		Release 96	[ ]
B	Addition of feature	[ ]		Release 97	[ ]
C	Functional modification of feature	[X]		Release 98	[ ]
D	Editorial modification	[ ]		Release 99	[X]
				Release 00	[ ]

Reason for change: Compressed mode parameters need to be aligned with RAN WG1 and WG3.

Clauses affected: 10.2.6.22

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments: This CR includes "gating" as a compressed mode method and is only presented for approval if a CR incorporating this method is presented by RAN WG1 and approved by RAN plenary #6.

10.2.6.22 Downlink DPCH compressed mode info (FDD only)

This information element indicates the parameters of the downlink compressed mode to be used by the UE in order to perform inter-frequency measurements.

Information Element/Group name	Presence	~~Range~~Multi	IE type and reference	Semantics description
TGL	M		Enumerated(1..15)~~Enumerated (3, 4, 7, 10, 14)~~	Transmission Gap length expressed in number of slots
CFN	M		Enumerated(0..255)	Connection Frame Number when the first compressed frame starts
SN	M		Enumerated(0..14)	Slot number when the transmission gap starts (within the CFN)
TGP1	M		Enumerated(1..256)	~~Transmission Gap Period indicates the number fo frames between two sets of consecutive compressed frames containing up to 2 transmission gaps~~ The period of repetition of a set of consecutive frames containing up to 2 transmission gaps.
TGP2	O		Enumerated(1..256)	If TGP2 is included, TGP1 is used for the 1st and the consecutive odd gap periods and TGP2 is used for the even ones.
TGD	M		Enumerated(0..35)	Transmission g~~G~~ap distance indicates the number of frames between two consecutive transmission gaps within a transmission gap period. If there is only one transmission gap in the transmission gap period, this parameter shall be set to zero.
PD	M		Enumerated(1..35, Infinity)	The pattern duration is the total time of the compressed mode pattern (all consecutive TGPs) expressed in number of frames.~~Total number of TGPs~~
PCM	M		Enumerated (~~'algorithm1~~ mode 0', '~~algorithm2~~ mode 1'.	Power control mode during the frame after the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
PRM	M		Enumerated (~~'algorithm1~~ mode 0', '~~algorithm2~~ mode 1'.	Power resume mode is the uplink power control algorithm to be used to compute the initial transmit power after the compressed mode gap.
UL/DL mode	M		Enumerated ('DL only', 'UL/DL')	Defines whether only DL or combined UL/DL compressed mode is used.
Compressed mode method	M		Enumerated ('puncturing', 'SF/2', 'gating', 'none')	Method for generating compressed mode gap
Scrambling code change	C if SF/2		Enumerated ('code change', 'no code change'.	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
Downlink frame type	M		Enumerated ('A' or 'B')	
Delta~~Eb/No~~SIR	M		Enumerated(	Delta in DL ~~Eb/No~~SIR target value to be set in the UE

			0, 0.5..7.5)	during the compressed frames. Granularity is 0.5 dB.(Note 1)
DeltaEb/NoSIRafter	M		Enumerated(0, 0.5..7.5)	Delta in DL Eb/NoSIR target value to be set in the UE one frame after the compressed frames. Granularity is 0.5 dB. (Note 1)

[Editors Note 1: The current assumptions is that the delta will be zero or positive]

Condition	**Explanation**
SF/2	This information element is only sent when the value of the "Compressed mode method" IE is "SF/2".

3GPP TSG-RAN Meeting #6
Nice, France, 13-15 December 1999

Document (R2-99h24)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	CR	044r1	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 4th Nov 1999

Subject: Gated transmission of DPCCH

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: There is a need to clarify the text related to gated transmission of DPCCH.

Clauses affected: 8.5.7.6, 10.1.1.1, 10.1.1.5, 10.1.4.1, 10.1.4.7, 10,1.5.4, 10.1.5.7,10.1.5.10, 10.1.5.13, 10.2.6.14

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

3. Text Proposal

8.5.7 Default actions on receipt of an information element

[...]

8.5.7.6.7 Gated transmission control info

If the IE "Gated transmission control info" is included and the gating rate equals Full, then UE shall

- Stop gated transmission of uplink(if supported) and downlink DPCCH at activation time.

Otherwise, UE shall

- Start gated transmission of uplink(if supported) and downlink DPCCH at activation time with given gating rate and pattern.

10.1.1.1 ACTIVE SET UPDATE (FDD only)

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	O			New U-RNTI
Activation time	O			
Ciphering mode info	O			
CN information elements				
PLMN identity	O			(Note3)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note3)
NAS system info	O			(Note3)
Phy CH information elements				
Maximum allowed UL TX power	O			
Radio link addition information		0 to <MaxAddRLcount>		Radio link addition information required for each RL to add
Primary CCPCH info	M			Note 1
SSDT cell identity	C - ifSSDT			
Downlink DPCH info	M			
Radio link removal information		0 to <MaxDelRLcount>		Radio link removal information required for each RL to remove
Primary CCPCH info	M			Note 1
Gated Transmission Control Info	O			~~FFS, Note 2~~
SSDT indicator	O			

[...]

~~*Note 2: The activation time should be present when the Gated Transmission control info is present in this message.*~~ Note3: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.

10.1.1.5 CELL UPDATE CONFIRM

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Ciphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN related information		0 to <Max-NoCNdo-mains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
NAS system info	O			(Note1,2)

Physical CH information elements (FFS Note 5)				
Frequency info	O (FFS)			
Uplink radio resources				
Uplink DPCH power control info	O (FFS)			
CHOICE channel requirement				
Uplink DPCH info	O (FFS)			
PRACH info (for RACH)	O (FFS)			
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)	O (FFS)			
Downlink radio resources				
DL information per radio link		0 to <max-NoRLs>		
Primary CCPCH info	O (FFS)			
Downlink DPCH info	O (FFS)			
Secondary CCPCH info	O (FFS)			
				Note 3
CHOICE *mode*				
FDD				
SSDT indicator	O (FFS)			
CPCH SET Info	O (FFS)			UL/DL radio resource for CPCH control (Note4)
~~Gated Transmission Control Info~~	~~O (FFS)~~			
Default DPCH Offset Value	O (FFS)			

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Activation time	O			
CN information elements				
PLMN identity	O			(Note1)
CN related information		0 to <Max-NoCNdo-mains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1)
NAS system info	O			(Note1)

RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB multiplexing info	M			
Transport Channel Information Elements				
TFCS	O			For uplink TFCSs
TFCS	O			For downlink TFCSs
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			For TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPDCH info				
PRACH info				
Downlink radio resource information				
Downlink information		0 to <Max		Send downlink information for

		Rlcount>		each radio link to be set-up
Primary CCPCH info				
Downlink DPDCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C if SSDT			FFS
CPCH SET info	O			UL/DL radio resource for CPCH control (Note3)
~~Gated Transmission Control info~~	~~O~~			~~FFS~~
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

10.1.4.7 RRC CONNECTION SETUP

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
U-RNTI	M			
C-RNTI	O			Only if assigned to a common transport channel
Activation time	O			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity	M			Indicates the signalling link
Signalling link type	M			
RB mapping info	M			For the signalling link
TrCH information elements				
TFCS	O			Uplink TFCS
TFCS	O			Downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			
Uplink transport channel information		0 to <MaxULTrCHCount>		Send transport channel information for each new Uplink transport channel
Transport channel identity	M			
TFS	M			
Downlink transport channel information		0 to <MaxDLTrCHCount>		Send transport channel information for each new downlink transport channel
Transport channel identity	M			
TFS	M			
Transparent mode signalling info	C if TM_DCH	0 or 1		
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max		Send downlink information for

		RLcount>		each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
~~Gated Transmission Control info~~	~~O, FFS~~			~~Note 3~~
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

~~Note 3: The activation time should be present when the Gated Transmission control info is present in this message~~

10.1.5.4 RADIO BEARER RECONFIGURATION

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB mapping info	O			
RB suspend/resume	O			Not applicable to the signalling bearer.
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information				

elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O			~~FFS, Note 3~~
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Note 2: How to map UL and DL radio resource in the message is FFS.

~~Note 3: The activation time should be present when the Gated Transmission control info is present in this message.~~

10.1.5.7 RADIO BEARER RELEASE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity		1 to <Max-RelRBcount>		
RB identity		0 to <MaxO-therRBcount>		
RB mapping info	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <Max-DelTrCH>		
Reconfigured TrCH information		0 to <MaxReco-nAddFFSTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReco-nAddFFSTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <Max-DelTrCH>		
Reconfigured TrCH information		0 to <MaxReco-nAddTrCH>		Editor : this limit should probably also be MaxReco-nAddFFSTrCH
Transport channel identity	M			
TFS	M			

Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
Gated Transmission Control info	O~~, FFS~~			~~Note 3~~
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
TDD				
Uplink Timing Advance	O			
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				

Note 2: How to map UL and DL radio resource in the message is FFS.

~~Note 3: The activation time should be present when the Gated Transmission control info is present in this message.~~

10.1.5.10 RADIO BEARER SETUP

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
CN information elements				
NAS binding info	M			
CN domain identity				
UE Information elements				
Activation time	O			
New C-RNTI	C – RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
Information for new RBs		1 to <MaxNewRBcount>		
RB identity	M			
RLC info	M			
RB mapping info	M			
Information for other RB's affected by this message		0 to <MaxOtherRBcount>		
RB identity	M			
RB mapping info	M			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		editor should this be FFS also?
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		FFS

Reconfigured TrCH information		0 to <MaxReco-nAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH com-pressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			~~FFS~~
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Note 2: How to map UL and DL radio resource in the message is FFS.

~~Note 3: The activation time should be present when the Gated Transmission control info is present in this message.~~

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
DRAC information	C DRAC	1 to <MaxReconTrCHDRAC>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
	O			

Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH com-pressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
~~Gated Transmission Control info~~	~~O~~			~~FFS, Note 3~~
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

~~Note 3: The activation time should be present when the Gated Transmission control info is present in this message.~~

10.2.6.14 Gated Transmission Control info ~~(FFS)~~ (FDD only)

This IE is used to start or stop uplink(if possible)/downlink gated transmission of DPCCH.

Information Element/Group name	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Gating pattern	M		Enumerated (periodic, random-~~(FFS)~~)	
Gating rate	M		Enumerated (Full rate,1/3 , 1/5 or 0(FFS))	Indicates gated transmission rate

3GPP TSG-RAN Meeting #6
Nice, France, 13-15 December 1999

Document* *(R2-99h27)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	**CR**	**047r1**	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		*(for SMG use only)*
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 12/11/1999

Subject: Editorial Corrections and Alignments with Layer 1 specifications

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: Inconsistencies to the TDD Layer 1 specifications are removed, Missing IE types and references are added, and some editorial corrections are made.

Clauses affected: 10

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:


help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.1.1.5 CELL UPDATE CONFIRM ~~(FDD only)~~

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Chiphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
NAS system info	O			(Note1,2)
Physical CH information elements (FFS Note 5)				
Frequency info	O (FFS)			
Uplink radio resources				
Uplink DPCH power control info	O (FFS)			
CHOICE channel requirement				
Uplink DPCH info	O (FFS)			
PRACH info (for RACH)	O (FFS)			
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)	O (FFS)			
Downlink radio resources				
DL information per radio link		0 to <maxNoRLs>		
Primary CCPCH info	O (FFS)			
Downlink DPCH info	O (FFS)			
Secondary CCPCH info	O (FFS)			
				Note 3
CHOICE *mode*				
FDD				

SSDT indicator	O (FFS)			
CPCH SET Info	O (FFS)			UL/DL radio resource for CPCH control (Note4)
Gated Transmission Control info	O (FFS)			
Default DPCH Offset Value	O (FFS)			

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Range Bound	**Explanation**
MaxNoRLs	Maximum number of radio links
MaxNoCN domains	Maximum number of CN domains

Condition	**Explanation**
AM_RLC_recon	This IE is only sent when the UTRAN requests AM RLC re-configuration

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]

[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

Note 3: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

Note 4: How to map UL and DL radio resource in the message is FFS.

Note 5: The inclusion of any physical channel information elements requires further study

10.1.1.7 HANDOVER COMPLETE

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
Phy CH information elements				
CHOICE *mode*				
~~T~~FDD				
SSDT indicator	O			
TDD	O			
Uplink Timing Advance				

10.1.5.1 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control	O			

info				
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				For FACH/PCH
CHOICE mode				
TDD				
PICH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated
RACH/FACH	This information element is only included in the sent message when using RACH/FACH

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

10.1.5.4 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB mapping info	O			
RB suspend/resume	O			Not applicable to the signalling bearer.
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTr		

		CH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE mode				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links

MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				

TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
DRAC information	C DRAC	1 to <MaxReconTrCHDRAC>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE mode				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
	O			
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS, Note 3

Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated
RACH/FACH	This information element is only sent when using RACH/FACH

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up
MaxReconcount	Maximum number of Transport CHannels reconfigured
MaxReconTrCHDRAC	Maximum number of Transport CHannels which are controlled by DRAC and which are reconfigured

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.6.4.7 System Information Block type 5

The system information block type 5 contains parameters for the configuration of the common physical channels in the cell. The block may also contain scheduling information for other system information blocks.

Area scope: cell

UE mode: idle mode (and connected mode)

Information Element	Presence	Range	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		0 .. <maxSysInfoBlockcount>		
Scheduling information	M			
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
CHOICE *mode*				
TDD				
Midamble configuration	O			The maximum number of midamble shifts for bursttype 1: 4, 8 or 16. Default value is 8. The maximum number of midamble shifts for bursttype 2: 3 or 6. Default value is 3.
~~PSCH Time slot~~				
FDD				
Secondary CPICH info	O			Note 2
Primary CCPCH info	O			Note 1
PRACH information		1 .. <maxPRACHcount>		
PRACH info	M			
TFS	M			
CHOICE *mode*				
FDD				
AICH info	M			
TDD				
ASC info	O			
Secondary CCPCH information		1 .. <maxSCCPCHcount>		
Secondary CCPCH info	M			
TFCS	M			For FACHs and PCH
FACH information		1 .. <maxFACHcount>		
TFS				For each FACHs and PCH
PICH info	C-Pich			
Maximum allowed UL TX power				
UE Information elements				
UTRAN_DRX_cycle length				

Note 1: DL scrambling code of the Primary CCPCH is the same as the one for Primary CPICH(FDD only).

Note 2: This parameter is needed in case of using adaptive array antenna.

Condition	Explanation
Pich	PICH info is present only when PCH is multiplexed on Secondary CCPCH
Range Bound	**Explanation**
MaxPRACHcount	Maximum number of PRACH's
MaxSCCPCHcount	Maximum number of secondary CCPCH's
MaxFACHcount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxPCHcount	Maximum number of PCH's mapped onto secondary CCPCH's
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

10.1.6.4.8 System Information Block type 6

The system information block type 6 contains parameters for the configuration of the common physical channels to be used in connected mode. The block may also contain scheduling information for other system information blocks. The block is optional. When not sent, the MS the MS shall apply in connected mode the values of the similar information indicated for idle mode.

Area scope: cell

UE mode: connected mode

Information Element	Presence	Range	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		0 .. <maxSysInfoBlockcount>		
Scheduling information	M			
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Primary CCPCH info	O			Note 1
CHOICE *mode*				
FDD				
Secondary CPICH info	O			Note 2
PRACH information		0 .. <maxPRACHcount>		
PRACH info	M			
TFS	M			

CHOICE *mode*				
FDD				
AICH info	M			
Secondary CCPCH information		0 .. <maxSCCPCHcount>		
Secondary CCPCH info	M			
TFCS	M			For FACHs and PCH
FACH information		1 .. <maxFACHcount>		
TFS				For each FACHs and PCH
PICH info	C-Pich			
Maximum allowed UL TX power				
UE Information elements				
UTRAN_DRX_cycle length				

Note 1: DL scrambling code of the Primary CCPCH is the same as the one for Primary CPICH. (FDD only)

Note 2: This parameter is needed in case of using adaptive array antenna.

Condition	**Explanation**
Pich	PICH info is present only when PCH is multiplexed on Secondary CCPCH

Range Bound	**Explanation**
MaxPRACHcount	Maximum number of PRACH's
MaxSCCPCHcount	Maximum number of secondary CCPCH's
MaxFACHcount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxPCHcount	Maximum number of PCH's mapped onto secondary CCPCH's
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

10.2.3.23 Transmission probability (FDD)

Indicates the probability for a mobile to be allowed to transmit on a DCH controlled by DRAC procedure.

10.2.3.24 Maximum bit rate (FDD)

Indicates the maximum user bit rate allowed on a DCH controlled by DRAC procedure for the transmission period (Transmission time validity).

10.2.3.26 CPCH Parameters (FDD)

These parameters are used by any UE using any CPCH set allocated to the Node B which is broadcasting this system information.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
NS_IP	M			Number of slots for initial delay for given priority level
Priority level	M			
Backoff control parameters				
N_ap_retrans_max	M			Max number of AP transmissions without AP-AICH response (access cycle), a PHY parameter.
N_access_fails	M			Max number of access cycles without AP-AICH response for link failure, a MAC parameter.
NS_bo_no aich	M			Max number of slots for UE backoff after N ap_retrans_max unsuccessful AP access attempts, a MAC parameter.
NF_bo_busy	M			Max number of frames for UE backoff after access attempt to busy CPCH, a MAC parameter.
NF_bo_all_busy	M			Max number of frames for UE backoff after access attempt to last busy CPCH, a MAC parameter.
NF_bo_collision	M			Max number of frames for UE backoff after collision on CPCH, a MAC parameter.
T_CPCH	M			CPCH channel timing -Number of slots used to determine Tau values for CPCH channel timing

Note: The WG1 and WG2 discussion should be concluded before the contents of these IEs can be finalized. All of the IEs may be considered optional (O) if the UE is programmed with default values for each IE.

10.2.5.4 Transport Format Set (TFS)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Dynamic Transport Format Information		1 to maxTFcount		The first instance of the parameter *Dynamic transport format information* correspond to Transport format 0 for this transport channel, the second to transport format 1 and so on.
Number f Transport blocks	M		Integer(0..40	

			95)	
Transport Block Size			Integer(1..128), Integer(160..40..2040), Integer(2120..80..5000)	
Semi-static Transport Format Information				
Transmission time interval			Enumerated(10, 20, 40, 80)	
Type of channel coding			Enumerated(No coding, Convolutional, Turbo)	
Coding Rate	C-Coding		Enumerated(1/2, 1/3)	
Rate matching attribute			Integer(1..maxRM)	
CRC size	M		Enumerated(0, 8, 12, 16, 24)	
CHOICE mode				
TDD				
2nd interleaving mode	O		Enumerated(Frame related, Timeslot related)	Frame or timeslot related interleaving. Default Frame related.

Condition	**Explanation**
Blocks	This IE is only present if IE “Number of Transport Blocks” is greater than 0.
Coding	This IE is only present if IE “Type of channel coding” is “Convolutional” or “Turbo”

Range Bound	**Explanation**
MaxTFcount	Maximum number of different transport formats that can be included in the Transport format set for one transport channel is 32.
MaxRM	Maximum number that could be set as rate matching attribute for a transport channel.

<Note: The parameter “rate matching attribute” is in line with the RAN WG1 specifications. However, it is not currently in line with the description in 25.302.>

10.2.5.5 Dynamic Control (FDD only)

Indicates if this transport channel is controlled by DRAC procedure or not.

10.2.5.6 Transmission time validity (FDD only)

Indicates the duration for which permission is granted on a DCH controlled by DRAC procedure.

10.2.5.7 Time duration before retry (FDD only)

Indicates the time duration before retrying to get the transmission permission on a DCH controlled by DRAC procedure, in case permission has not been granted.

10.2.5.8 Silent period duration before release (FDD only)

Indicates the maximum silent period duration before releasing the resource. This parameter may be merged with the Fkp-b parameter defined in the 'Transmission stop and resumption control' procedure defined in [1].

(Note: [1] RAN/WG1 S1.14 document)

10.2.5.9 Transport Format Combination Set Identity (TDD only)

~~Indicates the identity of every TFCS within a UE (TDD only)~~

Information Element/Group name	**Presence**	**Range**	**IE type and reference**	**Semantics description**
TFCS ID	M		Integer (0...3)	Indicates the identity of every TFCS within a UE

10.2.6.4 Primary CCPCH info

Information Element/Group name	**Presence**	**Range**	**IE type and reference**	**Semantics description**
CHOICE *mode*				
FDD				
STTD indicator	O			
TDD				
Timeslot	M		Integer (0...14)	~~The~~ PSCH timeslot ~~(the value k)~~
~~Midamble type~~	~~O~~			~~Long or short midamble~~
Cell parameters ID	~~M~~C-MessageType		Integer (0...127)	For the cell parameter table
Sync case	~~M~~C-MessageType		Enumerated (1, 2, 3)	Case 1,2, or 3
Offset	O		Integer (0...63)	SFN modulo 64 = offset
Repetition period	O		Integer (1, 2, 4, 8, 16, 32, 64)	Repetition period of the CCPCH. Default value is 1.

Repetition length	O		Integer (1...Repetition length-1)	Length of the allocation for each repetition. Default value is 1.

Condition	Explanation
C-MessageType	Mandatory in HANDOVER COMMAND message

10.2.6.5 Secondary CCPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer (0..14)	
STTD indicator	O			
Spreading factor	M		Enumerated(4, 16, 32, 64, 128, 256)	
Code number	M		Integer(0..maxCodeNum)	
Pilot symbol existence	M		Boolean	
TFCI existence	M		Boolean	
Fixed or Flexible Position	M		Enumerated (Fixed, Flexible)	
Timing Offset	O			Time difference between PCCPCH
TDD				
Channelization code	M		Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	
Time slot	M		Integer (0...14)	Timeslot of the Secondary CCPCH
~~Midamble~~Burst type	~~O~~		Enumerated(Type1, Type2)	Long or short midamble ~~for each time slot~~
Midamble shift	M		Integer (0...max Midamble Shift-1)	Midamble shift of Secondary CCPCH for each timeslot
~~Superframe o~~Offset	O~~M~~		Integer (0...63)	SFN modulo 64 = offset~~Offset of the first CCPCH transmission in a 72 superframe~~
Repetition period	O~~M~~		Integer (1, 2, 4, 8, 16, 32, 64)	Repetition period of the CCPCH ~~in the 72 superframe~~Default value is 1.
Repetition length	O~~M~~		Integer (1...Repetition period – 1)	Length of the allocation for each repetition. Default value is 1.

Condition	Explanation

Range Bound	Explanation
MaxCodeNum	Maximum number of codes for one spreading factor (SF) is equal to SF-1.

10.2.6.6 PRACH info (for RACH)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Persistence factor N	M			0-1 step ffs
CHOICE *mode*				
FDD				
Available Signature		1 to <maxSigNum>		
Signature	M		Enumerated (0,1.2…..15)	
Available SF		1 to <maxSf>		
SF	M		Enumerated (32,64,128,256 chip/sym)	
Scrambling code word number	M		Enumerated (0,1.2…..255)	
Puncturing Limit	M			
Available Sub Channel number		1 to < maxSubChNum >		
Sub Channel number	M		Enumerated (0,1,2,….11)	
~~Persistence factor N~~	~~M~~		~~ffs~~	~~0-1 step ffs~~
TDD				
~~Spreading factor~~	~~M~~			~~Spreading factor 8 or 16 are possible~~
Timeslot	M		Integer (0...14)	
Channelisation code	M		Enumerated ((8/1)...(8/8), (16/1)...(16/16)	1:1 mapping between spreading code and midamble shift
Max PRACH Midamble Shifts	O		Enumerated (4,8)	The maximum number of midamble shifts for the PRACH: 4 or 8. If no number is specified the default value 8 applies.
PRACH Midamble	O		Enumerated (1,2)	~~Basic midamble code for PRACH (two different codes possible)~~Direct or inverted midamble

Range Bound	Explanation
MaxSubChNum	Maximum number of available sub channels
MaxSigNum	Maximum number of available signatures
MaxSf	Maximum number of available SF

10.2.6.7 PRACH power control info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
UL interference	M			
Constant value	M			
CHOICE *mode*				
FDD				
Primary CPICH DL TX power	M			
~~UL interference~~	~~M~~			
~~Constant value~~	~~M~~			
Power offset• • P_0	M			Power step when no acquisition indicator is received
Power offset• • P_1	M			Power step when negative acquisition is received
Power offset• • $P_{p\text{-}m}$	M			Power offset between preamble and the message part
TDD				
Primary CCPCH DL Tx power	M			

NOTE: The usage of these parameters needs clarification and are also dependent on the WG1 RACH discussions.

10.2.6.8 Uplink DPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				

FDD				
UL scrambling code				What short or long uplink scrambling code a certain UE should use
Scrambling code type	M		Enumerated(short, long)	
Scrambling code number	M		Integer(0..16 777215)	(24 bits)
Number of DPDCH	M		Integer(1.. maxDPDCH count)	
DPDCH channelization code	C-*Single*		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of the channelization code for data part
TFCI existence	M	Boolean		
Number of FBI bits	O		Enumerated (1, 2 bits)	If neither SSDT nor FB Mode Transmit Diversity Signalling is supported, this parameter is not needed and the number of FBI bits is set to “0”.
Puncturing Limit	M			
TDD				
~~Scrambling code type~~	~~M~~		~~Enumerated(short, long)~~	
~~Scrambling code number~~	~~M~~		~~Integer(0..16 777215)~~	~~(24 bits)~~
~~DPCH~~ Activation Time	O		Integer (0...255)	Farme number start of allocation period ~~(the Superframe offset can be derived)~~
Duration	O		Integer (0...255)	Total number of frames. Default = 0 (for infinite).
Repetition period	O		Integer (1,2,4,8,16,32,64)	~~Repetition period of the DPCH in the 72 Superframe~~SFN modulo 64 = repetition period. Default value is 1.
Repetition length	O		Integer (1... Repetition period – 1)	Length of the allocation for each repetition period. Default value is 1.
TFCI presence	O		Boolean	Coding for a TFCI field ~~in a DPCH~~
Individuell DPCH info		1 to < max DPCH count>		
~~DPCH >~~channelisation code	~~M~~	1 to < max Codes count >	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	~~SF of the channelisation code of the data part for each DPCH~~Channelisation codes to be used in the uplink for DPCH
>Timeslot	M		Integer (0...14)	Timeslot of DPCH for each DPCH
>Burst~~Midamble~~ type	O		Enumerated (Type1, Type2)	Short or long, for each time slot, for each DPCH
>Midamble shift	M		Integer(0...maxMidamble Shift – 1)	Midamble shift for each timeslot for each DPCH
~~DPCH activation time~~	~~O~~			~~Frame number start of allocation (the Superframe OFFset can be derived) for each timeslot for each DPCH~~

Condition	Explanation
Single	This IE is included if IE “Number of DPDCH” is “1”

Range Bound	Explanation
MaxDPDCHcount	Maximum number of DPDCH~~”~~s
MaxCodesCount	Maximum number of codes for one DPCH

10.2.6.9 Uplink DPCH power control info

Parameters used by UE to set DPCH initial output power and to use for closed-loop power control.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Constant value				Necessity is ffs
UL interference				Necessity is ffs
TPC step size	M		Enumerated (1dB, 2dB)	
TDD				
UL target SIR	M			
Constant value				
UL interference				
TCP step size	M		Enumerated (1dB,2dB,3dB)	

10.2.6.10 Downlink DPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer (0..14)	
DL channelization code		1 to <maxChan count>		~~Channelization codes to be used in the downlink for DPCH~~SF of the channelisation code of the data part for each DPCH
Spreading factor	M		Enumerated(4, 16, 32, 64, 128, 256, 512)	
Code number	M		Integer(0..maxCodeNum)	
Fixed or Flexible Position	M		Enumerated	

			(Fixed, Flexible)	
TFCI existence	M		Boolean	
Number of bits for Pilot bits	C-SF		Enumerated (2,4,8 bits)	
STTD Indicator	C-STTD			
TDD				
~~DPCH~~ Activation Time	O		Integer (0...255)	Farme number start of allocation period ~~(the Superframe offset can be derived)~~
Duration	O		Integer (0...255)	Total number of frames. Default = 0 (for infinite)
Repetition period	O		Integer (1,2,4,8,16,32,64)	SFN modulo 64 = repetition period~~Repetition period of the DPCH in the 72 Superframe~~
Repetition length	O		Integer (1...Repetition period – 1)	Length of the allocation for each repetition period. Default value is 1.
TFCI presence	O		Boolean	Coding for a TFCI field in a DPCH
Individual DPCH info		1 to < max DPCH count>		
~~DPCH~~ >channelisation code	M	1 to <max Codes count>	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	~~SF of the channelisation code of the data part for each DPCH~~Channelization codes to be used in the downlink for DPCH.
>Timeslot	M		Integer (0...14)	Timeslot of DPCH ~~for each DPCH~~
>Burst~~Midamble~~ type	O		Enumerated (Typ1, Typ2)	Short or long midamble~~, for each time slot, for each DPCH~~
>Midamble shift	M		Integer (0...MaxMidambleShift – 1)	Midamble shift for each timeslot for each DPCH
~~DPCH activation time~~	~~O~~			~~Frame number start of allocation (the Superframe OFFset can be derived) for each timeslot for each DPCH~~

Condition	**Explanation**
STTD	This IE is only sent if STTD is applied
SF	This IE is only sent if SF=128 or 256 is applied. If SF=256, value is 2,4 or 8 If SF=128, value is 4 or 8

Range Bound	**Explanation**
MaxChancount	Maximum number of channelization codes used for DL DPCH

MaxCodeNum	Maximum number of codes for one spreading factor (SF) is equal to SF-1.
MaxDPCHcount	Maximum number for DPCH
MaxCodesCount	Maximum number of codes for one DPCH
MaxMidambleShift	Maximum number of Midamble Shifts

10.2.6.11 FB Mode Transmit Diversity signalling indicator (FDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Mode	M		Enumerated (mode1, mode2)	Associated with DL DPCH info (but not for each RL)

Note: These parameters shall be set optinally associated with DL DPCH info but not for each RL.

10.2.6.18 PICH Info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer(0..14)	
Channelisation code	M		Integer(0..255)	SF is fixed and equal to 256
Number of PI per frame	M		Enumerated (18, 36 72 144)	
STTD indicator	O			
TDD				
Channelisation code	M		Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	
Timeslot	M		Integer(0...14)	

BurstMidamble type	O		Enumerated (Typ1,Typ2)	
Midamble shift	M		Integer (0...maxMidambleShift – 1)	
Superframe oOffset	M		Integer (0...63)	
Repetition period	M		Integer (1, 2, 4, 8, 16, 32, 64)	
Repetition length	M		Integer (2, 4, 8)	
Paging Indicator lengthPICH repetition cycle	M		Integer (4, 8, 16)	
M	FFS			

10.2.6.25 Timing Advance (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
UL Timing Advance	M		Integer (0..255)	

10.2.6.26 PSCH Timeslot (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
PSCH information	M			

10.2.6.27 ASC Info (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Access Service Class 1 Support	O		Boolean	Each PRACH info IE in System Information is associated with an ASC info IE. Any one RACH can support multiple ASCs.
Access Service Class 2 Support	O		Boolean	
Access Service Class 3 Support	O		Boolean	

10.2.6.28 PUSCH info (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
UL scrambling code	M			What short or long uplink scrambling code a certain UE

				~~should use~~
~~PUSCH~~ Aa~~c~~tivation time	M		Integer (0..255)	Frame number start of allocation period ~~(the Superframe Offset can be derived)~~
Duration	M		Integer (0..255)	Total number of frames
Repetition Period	O		Integer (1, 2, 4, 8, 16, 32, 64)	SFN modulo 64 = repetition period. Default value 1. ~~Repetition period of the PUSCH in the 72 Superframe~~
Repetition length	O		Integer (1 ... Repetition length –1)	Length of the allocation for each repetition period. Default value is 1.
TFCI presence	O		Boolean	~~List of timeslots in which~~Coding for a TFCI field ~~is coded~~
Individual PUSCH info		1 to <maxPUSCHcount>		Different for each PUSCH
>~~PDCH~~ channelization code	~~M~~	1 to < max Codes count>	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)... (16/16))	~~SF of the channelization code~~Channalisation codes to be used in the uplink
>Timeslot	M		Integer (0...14)	Timeslot number
>~~Midamble~~Burst Type	~~O~~M		Enumerated (Typ1, Typ2)	Short or long midamble
>Midamble Shift	M		Integer (0...maxMidambleShift – 1)	Midamble shift of the PUSCH

Range Bound	**Explanation**
MaxPUSCHcount	Maximum number of PUSCH's
MaxCodesCount	Maximum number of codes for PUSCH

10.2.6.29 PDSCH info (TDD only)

Information Element/Group name	**Presence**	**Range**	**IE type and reference**	**Semantics description**
~~PDSCH a~~Activation time	M		Integer (0...255)	Frame number start of allocation period ~~(the Superframe Offset can be derived)~~
Duration	M		Integer (0...255)	Total number of frames
Repetition Period	O		Integer (1, 2, 4, 8, 16, 32, 64)	SFN modulo 64 = repetition ~~Repetition~~ period ~~of the DDSCH in the 72 Superframe~~.Default value is 1.

Repetition length	O		Integer (1 ... Repetition length –1)	Length of the allocation for each repetition. Default value is 1.
TFCI presence	O		Boolean	~~List of timeslots in which a~~ Coding for TFCI field ~~is coded~~
Individual PDSCH info		1 to <maxPDSCHcount>		Different for each PDSCH
>~~PDCH~~ channelization codes	M	1 to <max codes count>	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)... (16/16))	List of channelization codes used in the downlink for P~~U~~DSCH
>Timeslot	M		Integer (0...14)	Timeslot number
>~~Midamble~~Burst Type	~~O~~M		Enumerated (Typ1, Typ2)	Short or long midamble
>Midamble Shift	M		Integer (0... max Midamble Shift is –1)	Midamble shift of the P~~U~~DSCH

Range Bound	**Explanation**
MaxPDSCHcount	Maximum number of PDSCH's
Max Codescount	Maximum number of codes for PDSCH

3GPP TSG-RAN Meeting #6
Nice, France, 13-15 December 1999

***Document* (R2-99h28)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	CR	048r1	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*

(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** 12/11/1999

Subject: Information elements for TDD shared channel operation

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: Information Elements for shared channel operation in TDD are included

Clauses affected: 10, 14

Other specs affected:

Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

<Functional description of this message to be included here>
RLC-SAP: UM
Logical channel: CCCH, DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Activation time	O			
CN information elements				
PLMN identity	O			(Note1)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1)
NAS system info	O			(Note1)
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB multiplexing info	M			
Transport Channel Information Elements				
TFCS	O			For uplink TFCSs
TFCS	O			For downlink TFCSs
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			For TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			

PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPDCH info				
PRACH info				
Downlink radio resource information				
Downlink information		0 to <Max Rlcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPDCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET info	O			UL/DL radio resource for CPCH control (Note3)
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

[Note1: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

[Note 3: How to map UL and DL radio resource in the message is FFS.]

Condition	**Explanation**
DRAC	These information elements are only sent for transport channels which use the DRAC procedure
IfSSDT	This IE is sent only when SSDT is to be used

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Range Bound	**Explanation**
MaxNoCN domains	Maximum number of CN domains
MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure
MaxRLcount	Maximum number of radio links

10.1.4.7 RRC CONNECTION SETUP

This message is used by the network to accept the establishment of an RRC connection for an UE, including assignment of signalling link information, transport channel information and optionally physical channel information.
RLC-SAP: UM
Logical channel: CCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
U-RNTI	M			
C-RNTI	O			Only if assigned to a common transport channel
Activation time	O			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity	M			Indicates the signalling link
Signalling link type	M			
RB mapping info	M			For the signalling link
TrCH information elements				
TFCS	O			Uplink TFCS
TFCS	O			Downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			
Uplink transport channel information		0 to <MaxULTrCHCount>		Send transport channel information for each new Uplink transport channel
Transport channel identity	M			
TFS	M			
Downlink transport channel information		0 to <MaxDLTrCHCount>		Send transport channel information for each new downlink transport channel
Transport channel identity	M			
TFS	M			
Transparent mode signalling info	C if TM_DCH	0 or 1		
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed	O			

mode info				
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O, FFS			Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is sent only when SSDT is to be used
IfTM_DCH	This information is only sent if a DCH carrying transparent mode DCCH information is used, e.g. to send transport format combination commands.

Range Bound	**Explanation**
MaxULTrCHCoun	Maximum number of new uplink transport channels
MaxDLTrCHCount	Maximum number of new downlink transport channels
MaxRLcoun	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Note 2: How to map UL and DL radio resource in the message is FFS.
Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.1 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Physical Channel information				

elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH Compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				For FACH/PCH
CHOICE mode				
TDD				
PICH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated
RACH/FACH	This information element is only included in the sent message when using RACH/FACH

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

10.1.5.4 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB mapping info	O			
RB suspend/resume	O			Not applicable to the signalling bearer.
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReco		

		nAddTrCH >		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information	O			
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	

PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.
Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.7 RADIO BEARER RELEASE

<Functional description of this message to be included here>
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity		1 to <MaxRelRBcount>		
RB identity		0 to <MaxOtherRBcount>		
RB mapping info	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddFFSTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReconAddFFSTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to		

		<MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		Editor : this limit should probably also be MaxReconAddFFSTrCH
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
Gated Transmission Control info	O, FFS			Note 3
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
TDD				
Uplink Timing Advance	O			
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxDelRBcount	Maximum number of RBs to be released/deleted
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddFFSTrCH	Maximum number of transport channels to add (FFS) and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH Info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.
Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.10 RADIO BEARER SETUP

<Functional description of this message to be included here>
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
CN information elements				
NAS binding info	M			
CN domain identity				
UE Information elements				
Activation time	O			
New C-RNTI	C – RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
Information for new RBs		1 to <MaxNewRBcount>		
RB identity	M			
RLC info	M			
RB mapping info	M			
Information for other RB's affected by this message		0 to <MaxOtherRBcount>		
RB identity	M			
RB mapping info	M			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		editor should this be FFS also?
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
DRAC information	C DRAC	1 to <MaxReco		

		nAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		FFS
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	Explanation
RACH/FACH	This information element is only sent when using RACH/FACH
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated

Range Bound	Explanation
MaxRLcount	Maximum number of radio links
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddcount	Maximum number of Transport CHannels reconfigured or added
MaxNewRBcount	Maximum number of RBs that could be setup with this message
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.
Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink

Uplink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
DRAC information	C DRAC	1 to <MaxReconTrCHDRAC>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
	O			
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	Explanation
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated
RACH/FACH	This information element is only sent when using RACH/FACH

Range Bound	Explanation
MaxRLcount	Maximum number of radio links to be set up
MaxReconcount	Maximum number of Transport CHannels reconfigured
MaxReconTrCHDRAC	Maximum number of Transport CHannels which are controlled by DRAC and which are reconfigured

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.
Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.19 PUSCH CAPACITY REQUEST (TDD only)

This message is used by the UE for request of PUSCH resources to the UTRAN.
RLC-SAP: ~~t.b.d.~~ TM
Logical channel: SHCCH
Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
C-RNTI	M			
Measurement information elements				
Traffic amount information		1 to <RABCount>		Send traffic amount information for each Radio Access Bearer in the message
RB ID	M			
RLC buffer payload	M			
Measurement information		0 to <MeasRepCount>		Send Measurement information for each measurement report in the message
Measurement identity number	M			Refers to system information
Measured results	M			

Range Bound	Explanation
RABCount	Number of traffic amount informations in the message
MeasRepCoun	Number of measurement reports in the message

10.2.5.9 Transport Format Combination Set Identity (TDD only)

Information Element	Presence	Range	IE type and reference	Semantics description
TFCS ID	M		Integer (0...3)	Indicates the identity of every TFCS within a UE.
Shared Channel Indicator	O		Boolean	Indicates use of shared channels.

14.7.1 RRC Initialisation Information

Information Element	Presence	Range	IE type and reference	Semantics description

{##### no changes here #####}

Radio Bearer Information Elements				
For each Radio Bearer				
RB Identity				
RLC Info				
RB mapping info				
Transport Channel Information Elements				
TFCS (UL DCHs)				
TFCS (DL DCHs)				
TFC subset (UL DCHs)				
TFCS (USCHs)				
TFCS (DSCHs)				
TFC subset (USCHs)				
For each uplink transport channel				
Transport channel identity				
TFS				
DRAC Information				
Dynamic Control				
Transmission Time validity				
Time duartion before retry				
Silent Period duration before release				
For each downlink transport channel				
Transport channel identity				
TFS				
Physical Channel Information Elements				
Frequency info				
Uplink DPCH power control info				
SSDT Indicator				FFS
CPCH SET info				
Gated Transmission Control info				FFS
Default DPCH Offset value				
Uplink radio resource information				
Choice channel requirement				
Uplink DPCH info				
PUSCH info				

PRACH info (for RACH)				
PRACH info (for FAUSCH)				
~~Uplink Timeslot info~~				
Downlink Radio Resource Information				
Downlink DPCH power control info				
Downlink DPCH compressed mode info				
Downlink Information				
Primary CCPCH Info				
Downlink DPCH info				
PDSCH info				
Secondary CCPCH info				
~~Downlink Timeslot info~~				

3GPP TSG-RAN Meeting #6
Nice, France, 13-15 December 1999

***Document* (R2-99h31)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	CR	052	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]
(at least one should be marked with an X)

Source: TSG-RAN WG2 **Date:** 22 Nov 1999

Subject: New and corrected CPCH parameters

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: This CR contains modifications to add CPCH set ID to certain RRC messages, to modify CPCH set info to add new parameters for CPCH/RACH access slot partioning and for CPCH power control preamble.

Clauses affected: 10.1.4.1, 10.1.4.7, 10.1.5.4, 10.1.5.7, 10.1.5.10, 10.1.5.13, 10.1.6.4.11, 10.2.5, 10.2.6.20, 10.2.6.21

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.1.4 RRC Connection Establishment and maintenance messages

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

<Functional description of this message to be included here>

RLC-SAP: UM

Logical channel: CCCH, DCCH

Direction: UTRAN → UE

Information Element	**Presence**	**Range**	**IE type and reference**	**Semantics description**
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Activation time	O			
CN information elements				
PLMN identity	O			(Note1)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1)
NAS system info	O			(Note1)

RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB multiplexing info	M			
Transport Channel Information Elements				
TFCS	O			For uplink TFCSs
TFCS	O			For downlink TFCSs
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			For TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
CPCH set ID	O			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPDCH info				
PRACH info				
Downlink radio resource information				
Downlink information		0 to <MaxRlcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPDCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS

CPCH SET info	O			UL/DL radio resource for CPCH control (Note3)
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

[Note1: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

[Note 3: How to map UL and DL radio resource in the message is FFS.]

Condition	**Explanation**
DRAC	These information elements are only sent for transport channels which use the DRAC procedure
IfSSDT	This IE is sent only when SSDT is to be used

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Range Bound	**Explanation**
MaxNoCN domains	Maximum number of CN domains

MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure
MaxRLcount	Maximum number of radio links

10.1.4.7 RRC CONNECTION SETUP

This message is used by the network to accept the establishment of an RRC connection for an UE, including assignment of signalling link information, transport channel information and optionally physical channel information.

RLC-SAP: UM

Logical channel: CCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
U-RNTI	M			
C-RNTI	O			Only if assigned to a common transport channel
Activation time	O			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity	M			Indicates the signalling link
Signalling link type	M			
RB mapping info	M			For the signalling link
TrCH information elements				
TFCS	O			Uplink TFCS
TFCS	O			Downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			
Uplink transport channel information		0 to <MaxULTrCHCount>		Send transport channel information for each new Uplink transport channel
Transport channel identity	M			
TFS	M			
CPCH set ID	O			
Downlink transport channel information		0 to <MaxDLTrCHCount>		Send transport channel information for each new downlink transport channel
Transport channel identity	M			
TFS	M			
Transparent mode signalling info	C if TM_DCH	0 or 1		
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				

FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O, FFS			Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is sent only when SSDT is to be used
IfTM_DCH	This information is only sent if a DCH carrying transparent mode DCCH information is used, e.g. to send transport format combination commands.

Range Bound	**Explanation**
MaxULTrCHCoun	Maximum number of new uplink transport channels
MaxDLTrCHCount	Maximum number of new downlink transport channels
MaxRLcoun	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.4 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB mapping info	O			
RB suspend/resume	O			Not applicable to the signalling bearer.
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
CPCH set ID	O			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE channel	O			

requirement				
Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	

PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.7 RADIO BEARER RELEASE

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity		1 to <MaxRelRBcount>		
RB identity		0 to <MaxOtherRBcount>		
RB mapping info	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddFFSTrCH>		
Transport channel identity	M			
TFS	M			
CPCH set ID	O			
DRAC information	C DRAC	1 to <MaxReconAddFFSTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		Editor : this limit should probably also be MaxReconAddFFSTrCH
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				

Gated Transmission Control info	O, FFS			Note 3
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
TDD				
Uplink Timing Advance	O			
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxDelRBcount	Maximum number of RBs to be released/deleted
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddFFSTrCH	Maximum number of transport channels to add (FFS) and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	

PRACH Info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.10 RADIO BEARER SETUP

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
CN information elements				
NAS binding info	M			
CN domain identity				
UE Information elements				
Activation time	O			
New C-RNTI	C – RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
Information for new RBs		1 to <MaxNewRBcount>		
RB identity	M			
RLC info	M			
RB mapping info	M			
Information for other RB's affected by this message		0 to <MaxOtherRBcount>		
RB identity	M			
RB mapping info	M			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		editor should this be FFS also?
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
CPCH set ID	O			
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		FFS
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			

Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated

Range Bound	**Explanation**

MaxRLcount	Maximum number of radio links
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddcount	Maximum number of Transport CHannels reconfigured or added
MaxNewRBcount	Maximum number of RBs that could be setup with this message
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
CPCH set ID	O			
DRAC information	C DRAC	1 to <MaxReconTrCHDRAC>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
PRACH info (for RACH)				
	O			
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				

Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated
RACH/FACH	This information element is only sent when using RACH/FACH

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up
MaxReconcount	Maximum number of Transport CHannels reconfigured
MaxReconTrCHDRAC	Maximum number of Transport CHannels which are controlled by DRAC and which are reconfigured

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.6.4.11 System Information Block type 9 (FDD)

The system information block type 9 contains CPCH information to be used in the cell.

Area scope: cell

UE mode: connected mode

Information Element	Presence	Range	IE type and reference	Semantics description
Other information elements				
Expiration time	M			The expiration time specifies how long time the values of the information elements included in this system information block are valid.
UE information				
CPCH parameters	M			
PhyCH information elements				
CPCH SET info	M	0 to <maxCPCH_SETcount>		
CPCH set persistency value	M	0 to <maxCPCH_SETcount>		

Range Bound	**Explanation**
MaxCPCH_SETcount	Maximum number of CPCH sets

10.2.5 Transport CH Information elements

10.2.5.1 Transport Format Combination Set

Indicates the allowed combinations of already defined Transport formats.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Transport format combination		1 to 1024		The first instance of the parameter *Transport format combination* correspond to Transport format combination 0, the second to transport format combination 1 and so on.
CTFC			Integer(0..MaxCTFC-1)	Integer number calculated according to clause 14.

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calclulated according to the following: $\sum_{i=1}^{I}(L_i - 1)P_i$ with the notation according to clause 14.

10.2.5.2 Transport Format Combination Subset

Indicates which Transport format combinations in the already defined Transport format combination set that are allowed.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE Subset representation	M			
Minimum allowed Transport format combination number			Integer(0..MaxTFCValue-1)	The integer number is a reference to the *Transport format combination,* that arrived at that position in the *Transport Format Combination Set.*
Transport format combination		1 to <maxTFCcount>	Integer(0..MaxTFCValue-1)	The integer number(s) is a reference to the *Transport format combination,* that arrived at that position in the *Transport Format Combination Set.*

Range Bound	Explanation
MaxTFCcount	Maximum number of Transport Format Combinations that could be sent as the limited set that the UE is allowed to use.
MaxTFCValue	The max value of the Transport Format Combinations that currently is defined for this UE.

10.2.5.3 Transport channel identity

This information element is used to distinguish transport channels (both common and dedicated transport channels).

10.2.5.4 Transport Format Set (TFS)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Dynamic Transport Format Information		1 to maxTFcount		The first instance of the parameter *Dynamic transport format information* correspond to Transport format 0 for this transport channel, the second to transport format 1 and so on.
Number f Transport blocks	M		Integer(0..4095)	
Transport Block Size			Integer(1..128), Integer(160..40..2040), Integer(2120..80..5000)	
Semi-static Transport Format Information				
Transmission time interval			Enumerated(10, 20, 40, 80)	
Type of channel coding			Enumerated(No coding, Convolutional, Turbo)	
Coding Rate	C-Coding		Enumerated(1/2, 1/3)	
Rate matching attribute			Integer(1..maxRM)	
CRC size	M		Enumerated(0, 8, 16, 24)	

Condition	Explanation
Blocks	This IE is only present if IE “Number of Transport Blocks” is greater than 0.
Coding	This IE is only present if IE “Type of channel coding” is “Convolutional” or “Turbo”

Range Bound	Explanation
MaxTFcount	Maximum number of different transport formats that can be included in the Transport format set for one transport channel is 32.
MaxRM	Maximum number that could be set as rate matching attribute for a transport channel.

<Note: The parameter “rate matching attribute” is in line with the RAN WG1 specifications. However, it is not currently in line with the description in 25.302.>

10.2.5.5 Dynamic Control

Indicates if this transport channel is controlled by DRAC procedure or not.

10.2.5.6 Transmission time validity

Indicates the duration for which permission is granted on a DCH controlled by DRAC procedure.

10.2.5.7 Time duration before retry

Indicates the time duration before retrying to get the transmission permission on a DCH controlled by DRAC procedure, in case permission has not been granted.

10.2.5.8 Silent period duration before release

Indicates the maximum silent period duration before releasing the resource. This parameter may be merged with the Fkp-b parameter defined in the 'Transmission stop and resumption control' procedure defined in [1].

(Note: [1] RAN/WG1 S1.14 document)

10.2.5.9 Transport Format Combination Set Identity

Indicates the identity of every TFCS within a UE (TDD only)

10.2.5.2.10 Transparent mode signalling info

This information element points out a transport channel that is used for transparent mode signalling, and which type of message that is sent on the DCCH mapped on that channel.

Information Element	Presence	Range	IE type and reference	Semantics description
Transport channel identity				Transport channel used for transparent mode signalling DCCH
Message type			Enumerated (TRANSPORT FORMAT COMBINATION CONTROL)	Indicates which type of message sent on the transparent mode signalling DCCH

10.2.5.11 CPCH set ID (FDD only)

Indicates that this transport channel may use any of the Physical CPCH channels defined in the CPCH set info which contains the same CPCH set ID. The CPCH set ID associates the transport channel with a set of CPCH channels defined in a CPCH set info IE and a set of CPCH persistency values. The CPCH set info IE(s) and the CPCH persistency values IE(s) each include the CPCH set ID and are part of the SYSTEM INFORMATION message

10.2.6.20 CPCH set info (FDD only)

This IE may be broadcast in the System Information message or assigned by SRNC. It is pseudo-static in a cell.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CPCH set ID	MC			Indicates the ID number for a particular CPCH set allocated to a cell. Necessity is FFS.
AP preamble code	MO			256 chip preamble code for AP in UL
AP-AICH channelisation code	MO			256 chip channelisation code for AP-AICH in DL
AP access slot subchannel	O	1 to <maxSubChNum>	Enumerated (0,1,2,….11)	Lists the set of subchannels to be used for AP access preambles. Note: if not present, all subchannels are to be used without access delays.
CD preamble code	MO			256 chip preamble code for CD in UL
CD-AICH channelisation code	MO			256 chip channelisation code for CD-AICH in DL
CD access slot subchannel	O	1 to <maxSubChNum>	Enumerated (0,1,2,….11)	Lists the set of subchannels to be used for CD access preambles. Note: if not present, all subchannels are to be used without access delays.
CD sSignature code N	O	1 to <maxSigNum>	Enumerated (0,1,2,….15)	Signature code for CPCH channel CD preambleselection in UL. 16 signatures, 16 bits each, N from 1-16. Note: if not present, all signatures are available for use.
CPCH channel info	M	10 to <maxCPCHs>		
UL scrambling code	MO			For CPCH message part
UL channelisation code	MO			For CPCH message part
DL channelisation code	MO			For DPCCH in CPCH message part
NF_max (Max packet length in frames)	MO			Max packet length in frames for CPCH message partt
AP sSignature codepointer (maps to set of signatures for this channel)	MO	1 to <maxSigNum>	Enumerated (0,1,2,….15)	AP preamble signature codes for selection of this CPCH channel.
PCP length	M		Enumerated (0 access slots, 8 access slots)	Indicates length of power control preamble, 0 access slots (no preamble used) or 8 access slots

Range Bound	Explanation

MaxCPCHs	Maximum number of CPCH channels in a CPCH set (max=16 with 1 signature per channel)
MaxSubChNum	Maximum number of available sub channels (max = 12 subchannels defined)
MaxSigNum	Maximum number of available signatures (max = 16)

Note: Whether several CPCH Set Info with different QoS can be set in a cell is FFS.

10.2.6.21 CPCH persistency values (FDD only)

This IE is dynamic and is used by RNC for load balancing and congestion control. This is broadcast often in the system information message.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CPCH set ID	M			Identifier for CPCH set info.
PV_CPCHn	M	1 to <maxCPCHs>		Persistency value for CPCHn. One PV for each CPCH channel in this CPCH set.

Range Bound	Explanation
MaxCPCHs	Maximum number of CPCH channels in a CPCH set (max=16 with 1 signature per channel)

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Document* *(R2-99j86)

CHANGE REQUEST

25.331 **CR** **053r2** Current Version: Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6 for approval [X] strategic [ ] *(for SMG use only)*
list expected approval meeting # here ↑ for information [ ] non-strategic [ ]

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 01.12.1999

Subject: Compressed mode parameters without gating

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[ ]
A	Corresponds to a correction in an earlier release	[ ]
B	Addition of feature	[ ]
C	Functional modification of feature	[X]
D	Editorial modification	[ ]

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

Reason for change: Compressed mode parameters need to be aligned with RAN WG1 and WG3.

Clauses affected: 10.2.6.22

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments: This CR does not include "gating" as a compressed mode method and is only presented for approval if a CR incorporating this method is not approved by RAN plenary #6.

10.2.6.22 Downlink DPCH compressed mode info (FDD only)

This information element indicates the parameters of the downlink compressed mode to be used by the UE in order to perform inter-frequency measurements.

Information Element/Group name	Presence	~~Range~~Multi	IE type and reference	Semantics description
TGL	M		Enumerated(1..15)~~Enumerated (3, 4, 7, 10, 14)~~	Transmission Gap length expressed in number of slots
CFN	M		Enumerated(0..255)	Connection Frame Number when the first compressed frame starts
SN	M		Enumerated(0..14)	Slot number when the transmission gap starts (within the CFN)
TGP1	M		Enumerated(1..256)	~~Transmission Gap Period indicates the number fo frames between two sets of consecutive compressed frames containing up to 2 transmission gaps~~ The period of repetition of a set of consecutive frames containing up to 2 transmission gaps.
TGP2	O		Enumerated(1..256)	If TGP2 is included, TGP1 is used for the 1st and the consecutive odd gap periods and TGP2 is used for the even ones.
TGD	M		Enumerated(0..35)	Transmission g~~G~~ap distance indicates the number of frames between two consecutive transmission gaps within a transmission gap period. If there is only one transmission gap in the transmission gap period, this parameter shall be set to zero.
PD	M		Enumerated(1..35, Infinity)	The pattern duration is the total time of the compressed mode pattern (all consecutive TGPs) expressed in number of frames.~~Total number of TGPs~~
PCM	M		Enumerated ('~~algorithm1~~ mode 0', '~~algorithm2~~ mode 1'.	Power control mode during the frame after the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
PRM	M		Enumerated ('~~algorithm1~~ mode 0', '~~algorithm2~~ mode 1'.	Power resume mode is the uplink power control algorithm to be used to compute the initial transmit power after the compressed mode gap.
UL/DL mode	M		Enumerated ('DL only', 'UL/DL')	Defines whether only DL or combined UL/DL compressed mode is used.
Compressed mode method	M		Enumerated ('puncturing', 'SF/2', 'none')	Method for generating compressed mode gap
Scrambling code change	C if SF/2		Enumerated ('code change', 'no code change'.	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
Downlink frame type	M		Enumerated ('A' or 'B')	
Delta~~Eb/No~~SIR	M		Enumerated(0, 0.5..7.5)	Delta in DL ~~Eb/No~~SIR target value to be set in the UE during the compressed

				frames. Granularity is 0.5 dB. ~~(Note 1)~~
Delta~~Eb/No~~SIRafter	M		Enumerated(0, 0.5..7.5)	Delta in DL ~~Eb/No~~SIR target value to be set in the UE one frame after the compressed frames. Granularity is 0.5 dB. ~~(Note 1)~~

~~*[Editors Note 1: The current assumptions is that the delta will be zero or positive]*~~

Condition	**Explanation**
SF/2	This information element is only sent when the value of the "Compressed mode method" IE is "SF/2".

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Document* *(R2-99h55)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	**CR**	**054**	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6 *list expected approval meeting # here ↑*	for approval	X	strategic		*(for SMG use only)*
	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*	(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** 23 Nov 1999

Subject: Transport format combination set and transport format combination subset

Work item:

Category: *(only one category shall be marked with an X)*			**Release:**	
F	Correction		Phase 2	
A	Corresponds to a correction in an earlier release		Release 96	
B	Addition of feature		Release 97	
C	Functional modification of feature	X	Release 98	
D	Editorial modification		Release 99	X
			Release 00	

Reason for change: This CR contains modifications to the Transport Format Combination Subset IE and the Transport Format Combination Set IE. The latter implements TFCI incremental reconfiguration, as defined in 25.302.

Clauses affected: 10.2.5.1, 10.2.5.2

Other specs affected:			
Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:


help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.2.5.1 Transport Format Combination Set

Indicates the allowed combinations of already defined Transport formats.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE TFCS representation	M			
~~Transport format combination~~		~~1 to 1024~~		~~The first instance of the parameter *Transport format combination* correspond to Transport format combination 0, the second to transport format combination 1 and so on.~~
≥ CTFC		1 to MaxTFCcount	Integer(0..MaxCTFC-1)	The first instance of the parameter *Transport format combination* corresponds to Transport format combination 0, the second to transport format combination 1 and so on. Integer number calculated according to clause 14.
> TFCI		1 to MaxDelTFCcount	Integer(0..MaxTFCIValue)	Removal of TFCI. The integer number(s) is a reference to the transport format combinations to be removed.
> AddCTFC		1 to MaxAddTFCcount	Integer(0..MaxCTFC-1)	Addition of TFCI. The integer number(s) is the calculated transport format combination that is added. The new TFC(s) is inserted into the first available position(s) in the TFCI (counting from zero).

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calclulated according to the following: $\sum_{i=1}^{I}(L_i - 1)P_i$ with the notation according to clause 14.
MaxTFCCount	Maximum number of Transport Format Combinations.
MaxTFCValue	The max value of the Transport Format Combinations that currently is defined for this UE.
MaxAddTFCIcount	Maximum number of Transport Format Combinations to be added.
MaxDelTFCcount	Maximum number of Transport Format Combinations to be removed.

10.2.5.2 Transport Format Combination Subset

Indicates which Transport format combinations in the already defined Transport format combination set that are allowed.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE Subset representation	M			
> Minimum allowed Transport format combination number			Integer(0..MaxTFCValue-1)	The integer number is a reference to the *Transport format combination,* whichthat arrived at that position in the *Transport Format Combination Set.*
> Allowed tTransport format combination		1 to <maxTFCcount>	Integer(0..MaxTFCValue-1)	The integer number(s) is a reference to the *Transport format combination,* whichthat arrived at that position in the *Transport Format Combination Set.*
> Non-allowed transport format combination		1 to <MaxTFCcount>	Integer(0..MaxTFCValue)	The integer number(s) is a reference to the *Transport format combination,* which arrived at that position in the *Transport Format Combination Set.*
> Restricted TrCH information		1 to <MaxRstTrCHcount>		
>> Restricted TrCH identity	M		Integer(0..MaxTrCHValue)	The integer number(s) is a reference to the transport channel that is restricted.
>> Allowed TFIs	O	1 to <MaxTFcount>	Integer(0..MaxTFValue)	The integer number(s) is a reference to the transport format that is allowed. If no elements are given, all transport formats or the TrCH with non-zero rate are restricted.

Range Bound	Explanation
MaxTFCcount	Maximum number of Transport Format Combinations that could be sent as the limited set that the UE is allowed to use.
MaxTFCValue	The max value of the Transport Format Combinations that currently is defined for this UE.
MaxRstTrCHcount	Maximum number of Transport Channels that could be restricted.
MaxTrCHValue	Maximum value of the Transport Channels that currently is defined for this UE.
MaxTFcount	Maximum number of the Transport Formats that is defined.
MaxTFValue	Maximum value of the Transport Formats that is defined.

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Document (R2-99h80)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	CR	056	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]
(at least one should be marked with an X)

Source: TSG-RAN WG2 **Date:** 26/11/1999

Subject: Corrections and Alignments of the RRC to the L1 for TDD.

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:
Editorial indentation mistakes are fixed.
Transmission time interval is a dynamic transport format parameter. IE transport format set is modified accordingly.
Semantics descriptions are improved in several info elements.
Parameter TFCI coding is included to define the coding to be used by layer 1. TFCI existence is defined to be timeslot related.
Default values are included where appropriate. IE type and reference fields are optimised. Presence fields are updated in order to reduce the size of messages.
Parameter Puncturing Limit is included in relevant IEs (e.g. Uplink DPCH info).

Clauses affected: 10.1.1.5, 10.1.4.1, 10.1.5.4, 10.1.5.7, 10.1.5.10, 10.1.5.13, 10.2.5.4, 10.2.6.4, 10.2.6.5, 10.2.6.8, 10.2.6.10, 10.2.6.18, 10.2.6.28, 10.2.6.29

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments: This CR presumes that CR047r01 and CR048r01 are accepted.

help.doc

<--------- double-click here for help and instructions on how to create a CR.

10.1.1.5 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Ciphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
NAS system info	O			(Note1,2)

Physical CH information elements (FFS Note ~~5~~4)				
Frequency info	O (FFS)			
Uplink radio resources				
Uplink DPCH power control info	O (FFS)			
CHOICE channel requirement				
Uplink DPCH info	O (FFS)			
PRACH info (for RACH)	O (FFS)			
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)	O (FFS)			
Downlink radio resources				
DL information per radio link		0 to <maxNoRLs>		
Primary CCPCH info	O (FFS)			
Downlink DPCH info	O (FFS)			
Secondary CCPCH info	O (FFS)			
				~~Note 3~~
CHOICE *mode*				
FDD				
SSDT indicator	O (FFS)			
CPCH SET Info	O (FFS)			UL/DL radio resource for CPCH control (Note ~~4~~ 3)
Gated Transmission Control info	O (FFS)			
Default DPCH Offset Value	O (FFS)			

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Range Bound	**Explanation**
MaxNoRLs	Maximum number of radio links
MaxNoCN domains	Maximum number of CN domains

Condition	**Explanation**
AM_RLC_recon	This IE is only sent when the UTRAN requests AM RLC re-configuration

[Note1: It depends on the length of these information whether this message can be used to notify these information to UE.]

[Note2: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

~~Note 3: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.~~

Note 3~~ 4~~: How to map UL and DL radio resource in the message is FFS.

Note 4~~5~~: The inclusion of any physical channel information elements requires further study

10.1.4 RRC Connection Establishment and maintenance messages

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

<Functional description of this message to be included here>

RLC-SAP: UM

Logical channel: CCCH, DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Activation time	O			
CN information elements				
PLMN identity	O			(Note1)
CN related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1)
NAS system info	O			(Note1)

RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB multiplexing info	M			
Transport Channel Information Elements				
TFCS	O			For uplink TFCSs
TFCS	O			For downlink TFCSs
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			For TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
CHOICE mode				
FDD				
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPDCH info				
PRACH info				
Downlink radio resource information				
Downlink information		0 to <MaxRlcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPDCH info				

Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET info	O			UL/DL radio resource for CPCH control (Note3)
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

[Note1: Necessity of PLMN is FFS and for CN domain identity and NAS system information, the confirmation in SA WG2 is needed.]

[Note 3: How to map UL and DL radio resource in the message is FFS.]

Condition	**Explanation**
DRAC	These information elements are only sent for transport channels which use the DRAC procedure
IfSSDT	This IE is sent only when SSDT is to be used

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Range Bound	**Explanation**
MaxNoCN domains	Maximum number of CN domains
MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure
MaxRLcount	Maximum number of radio links

10.1.5.4 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information		0 to <MaxRBcount>		RB information is sent for each RB affected by this message
RB identity	M			
RLC info	O			FFS
RB mapping info	O			
RB suspend/resume	O			Not applicable to the signalling bearer.
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for TFCSs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
CHOICE mode				
FDD				
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			

PUSCH power control info	O			
Uplink radio resource information	O			
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE mode				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxRBcount	Maximum number of RBs to be reconfigured
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddTrCH	Maximum number of transport channels to add and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.7 RADIO BEARER RELEASE

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB identity		1 to <MaxRelRBcount>		
RB identity		0 to <MaxOtherRBcount>		
RB mapping info	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddFFSTrCH>		
Transport channel identity	M			
TFS	M			
CHOICE mode				
FDD				
DRAC information	C DRAC	1 to <MaxReconAddFFSTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		Editor : this limit should probably also be MaxReconAddFFSTrCH
Transport channel identity	M			
TFS	M			
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			

PUSCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
Gated Transmission Control info	O, FFS			Note 3
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
TDD				
Uplink Timing Advance	O			
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
~~PRACH info (for RACH)~~				
Downlink radio resource information				
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links
MaxDelRBcount	Maximum number of RBs to be released/deleted
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure
MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddFFSTrCH	Maximum number of transport channels to add (FFS) and reconfigure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**

Uplink DPCH info	
PRACH Info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.10 RADIO BEARER SETUP

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
CN information elements				
NAS binding info	M			
CN domain identity				
UE Information elements				
Activation time	O			
New C-RNTI	C – RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
Information for new RBs		1 to <MaxNewRBcount>		
RB identity	M			
RLC info	M			
RB mapping info	M			
Information for other RB's affected by this message		0 to <MaxOtherRBcount>		
RB identity	M			
RB mapping info	M			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		editor should this be FFS also?
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			
CHOICE mode				
FDD				
DRAC information	C DRAC	1 to <MaxReconAddTrCH>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Transport channel identity		0 to <MaxDelTrCH>		FFS
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
Transport channel identity	M			
TFS	M			

Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information	O			
CHOICE *mode*				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH Info (for RACH)				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
RACH/FACH	This information element is only sent when using RACH/FACH
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links

MaxDelTrCHcount	Maximum number of Transport CHannels to be removed
MaxReconAddcount	Maximum number of Transport CHannels reconfigured or added
MaxNewRBcount	Maximum number of RBs that could be setup with this message
MaxOtherRBcount	Maximum number of Other RBs (ie RB's not being released) affected by the procedure

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for FAUSCH)	
PRACH info (for RACH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length	O			
DRX Indicator	O			
Transport Channel Information Elements				
TFCS	O			for uplink TFCS
TFCS	O			for downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			for DCHs in uplink
Uplink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
CHOICE mode				
FDD				
DRAC information	C DRAC	1 to <MaxReconTrCHDRAC>		
Dynamic Control				
Transmission time validity				
Time duration before retry				
Silent period duration before release				
Downlink transport channels				
Reconfigured TrCH information		0 to <MaxReconTrCH>		
Transport channel identity				
TFS				
Physical Channel information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
PUSCH power control info	O			
Uplink radio resource information				
CHOICE mode				
FDD				
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
CHOICE channel requirement	O			
Uplink DPCH info				
CHOICE *mode*				
FDD				
PRACH info (for FAUSCH)				

PRACH info (for RACH)				
	O			
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <Max RLcount>		Send downlink information for each radio link
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
Gated Transmission Control info	O			FFS, Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is only sent when SSDT is used and when a new DCH is being activated
RACH/FACH	This information element is only sent when using RACH/FACH
DRAC	These information elements are only sent for transport channels which use the DRAC procedure

Range Bound	**Explanation**
MaxRLcount	Maximum number of radio links to be set up
MaxReconcount	Maximum number of Transport CHannels reconfigured
MaxReconTrCHDRAC	Maximum number of Transport CHannels which are controlled by DRAC and which are reconfigured

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info (for RACH)	
PRACH info (for FAUSCH)	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.2.5.4 Transport Format Set (TFS)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Dynamic Transport Format Information		1 to maxTFcount		The first instance of the parameter *Dynamic transport format information* correspond to Transport format 0 for this transport channel, the second to transport format 1 and so on.
Number f Transport blocks	M		Integer(0..4095)	
Transport Block Size			Integer(1..128), Integer(160..40..2040), Integer(2120..80..5000)	
CHOICE mode				
TDD				
Transmission time interval	C-TTIdynamic	1 to <maxTTIcount>	Enumerated (10, 20, 40, 80)	
Semi-static Transport Format Information				
Transmission time interval	C-TTIsemistatic		Enumerated (10, 20, 40, 80)	
Type of channel coding			Enumerated (No coding, Convolutional, Turbo)	
Coding Rate	C-Coding		Enumerated (1/2, 1/3)	
Rate matching attribute			Integer(1..maxRM)	
CRC size	M		Enumerated (0, 8, 12, 16, 24)	
CHOICE mode				
TDD				
2nd interleaving mode	O		Enumerated (Frame related, Timeslot related)	Frame or timeslot related interleaving. Default Frame related.

Range Bound	Explanation
maxTTIcount	Denotes the amount of different TTI that are possible for that transport format.

Condition	Explanation
Blocks	This IE is only present if IE "Number of Transport Blocks" is greater than 0.
Coding	This IE is only present if IE "Type of channel coding" is "Convolutional" or "Turbo"
TTIdynamic	This IE is mandatory if not defined as semistatic parameter. Otherwise it is absent.
TTIsemistatic	This IE is mandatory if not defined as dynamic parameter. Otherwise it is absent.

Range Bound	Explanation
MaxTFcount	Maximum number of different transport formats that can be included in the Transport format set for one transport channel is 32.
MaxRM	Maximum number that could be set as rate matching attribute for a transport channel.

<Note: The parameter "rate matching attribute" is in line with the RAN WG1 specifications. However, it is not currently in line with the description in 25.302.>

10.2.6.4 Primary CCPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
STTD indicator	O			
TDD				
Timeslot	M		Integer (0...~~14~~maxTS)	PSCH timeslot
Cell parameters ID	C-MessageType		Integer (0...127)	For the cell parameter table
Sync case	C-MessageType		Enumerated (1, 2, 3)	Case 1,2, or 3
Offset	O		Integer (0...Repetition period-1)	SFN modulo Repetition period = offset. Default value is 0.
Repetition period	O		Integer (1, 2, 4, 8, 16, 32, 64)	Repetition period of the PCCPCH. Default value is 1.
Repetition length	O		Integer (1...Repetition period - 1)	Length of the allocation for each repetition. Default value is 1.

Condition	Explanation
C-MessageType	Mandatory in HANDOVER COMMAND message

Range Bound	**Explanation**
MaxTScount	In synchronisation case 2 and 3 MaxTScount is 6. In synchronisation case 1 MaxTScount is 14.

10.2.6.5 Secondary CCPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer (0..14)	
STTD indicator	O			
Spreading factor	M		Enumerated(4, 16, 32, 64, 128, 256)	
Code number	M		Integer(0..maxCodeNum)	
Pilot symbol existence	M		Boolean	
TFCI existence	M		Boolean	
Fixed or Flexible Position	M		Enumerated (Fixed, Flexible)	
Timing Offset	O			Time difference between PCCPCH
TDD				
TFCI coding	O		Enumerated(4,8,16,32)	Describes the way the TFCI bits are coded. Default: 1 TFCI bit coded with 4 bits. 2 TFCI bits coded with 8 bits. 3-5 TFCI bits coded with 16 bits. 6-10 TFCI bits coded with 32 bits.
Repetition period	O		Integer (1, 2, 4, 8, 16, 32, 64)	Repetition period of the SCCPCH Default value is 1.
Repetition length	O		Integer (1...Repetitionperiod – 1)	Length of the allocation for each repetition. Default value is 1.
Offset	O		Integer (0...Repetition Period -1)	SFN modulo Repetition period = offset. Default value is 0.
Channelization code	~~M~~	1 to < max Codes count >	Enumerated ((1/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	The first instance of the parameter Channelisation code corresponds to the first code in that timeslot that shall be used first by the physical layer, the second to the code in that timeslot that shall be used second and so on.
Time-slot	M		Integer (0...14)	Timeslot ~~of the Secondary CCPCH~~within a frame
TFCI existence	O		Boolean	If the TFCI exists it shall be coded in the first code in this timeslot. Default is No TFCI
Burst type	O		Enumerated(Type1, Type2)	Long or short midamble used in this timeslot. Default is burst type 1.
Midamble shift	~~M~~O		Integer (0...max Midamble Shift-1)	Midamble shift of this ~~Secondary CCPCH for each~~ timeslot. Default is set by layer 1.
~~Offset~~	~~O~~		~~Integer (0...)~~	~~SFN modulo = offset~~
~~Repetition period~~	~~O~~		~~Integer (1, 2, 4, 8, 16, 32, 64)~~	~~Repetition period of the CCPCH Default value is 1.~~
~~Repetition length~~	~~O~~		~~Integer (1...Repetitio~~	~~Length of the allocation for each repetition. Default value~~

			~~nperiod – 1)~~	~~is 1.~~

Condition	**Explanation**

Range Bound	**Explanation**
MaxCodeNum	Maximum number of codes for one spreading factor (SF) is equal to SF-1.
MaxCodesCount	Maximum number of codes in one timeslot.

10.2.6.8 Uplink DPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
UL scrambling code				What short or long uplink scrambling code a certain UE should use
Scrambling code type	M		Enumerated (short, long)	
Scrambling code number	M		Integer(0..16777215)	(24 bits)
Number of DPDCH	M		Integer(1.. maxDPDCH count)	
DPDCH channelization code	C-*Single*		Enumerated (4, 8, 16, 32, 64, 128, 256)	SF of the channelization code for data part
TFCI existence	M	Boolean		
Number of FBI bits	O		Enumerated (1, 2 bits)	If neither SSDT nor FB Mode Transmit Diversity Signalling is supported, this parameter is not needed and the number of FBI bits is set to "0".
Puncturing Limit	M			
TDD				
Puncturing Limit	M			
TFCI coding	O		Enumerated (4,8,16,32)	Describes the way the TFCI bits are coded. Default: 1 TFCI bit coded with 4 bits. 2 TFCI bits coded with 8 bits. 3-5 TFCI bits coded with 16 bits. 6-10 TFCI bits coded with 32 bits.
Activation Time	O		Integer (0...255)	Frame number start of allocation period. Default is Activation time in UE information elements.
Duration	O		Integer (0...255)	Total number of frames Default = 0 (for infinite).
Repetition period	O		Integer (1,2,4,8,16, 32,64)	Repetition period of the DPCHs. Default value is 1.
Repetition length	O		Integer (1... Repetition period -1)	Length of the allocation for each repetition period. Default value is 1.
~~TFCI presence~~	~~O~~		~~Boolean~~	~~Coding for a TFCI field~~
Individual DPCH timeslot info		1 to < max DPCH Timeslot count>		The first instance of the parameter Individual Timeslot Info corresponds to the timeslot that shall be used first by the physical layer, the second to the timeslot that shall be used second and so on.
>channelisation code		1 to < max Codes count >	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	~~Channelisation codes to be used in the uplink for DPCH~~The first instance of the parameter Channelisation code corresponds to the first DPCH in that timeslot that

				shall be used first by the physical layer, the second to the DPCH in that timeslot that shall be used second and so on.
>Timeslot	M		Integer (0...14)	~~Timeslot of DPCH for each DPCH~~Timeslot within a frame.
>TFCI existence	O		Boolean	If the TFCI exists it shall be coded in the first DPCH in this timeslot. Default value is No TFCI.
>Burst type	O		Enumerated (Type1, Type2)	Short or long midamble for this timeslot.~~, for each time slot, for each DPCH~~Default is burst type 1.
>Midamble shift	~~M~~O		Integer(0... maxMidambleShift – 1)	Midamble shift for ~~each~~this timeslot ~~for each DPCH~~. Default is set by layer 1.

Condition	**Explanation**
Single	This IE is included if IE “Number of DPDCH” is “1”

Range Bound	**Explanation**
MaxDPDCHcount	Maximum number of DPDCH's
MaxCodesCount	Maximum number of codes for one ~~DPCH~~timeslot.
MaxTimeslotcount	Maximum number of timeslots used for DPCHs

10.2.6.10 Downlink DPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer (0..14)	
DL channelization code		1 to <maxChancount>		SF of the channelisation code of the data part for each DPCH
Spreading factor	M		Enumerated (4, 16, 32, 64, 128, 256, 512)	
Code number	M		Integer(0..maxCodeNum)	
Fixed or Flexible Position	M		Enumerated (Fixed, Flexible)	
TFCI existence	M		Boolean	
Number of bits for Pilot bits	C-SF		Enumerated (2,4,8 bits)	
STTD Indicator	C-STTD			
TDD				
Activation Time	O		Integer (0...255)	F~~a~~rame number start of allocation period. Default is Activation time in UE information elements.
Duration	O		Integer (0...255)	Total number of frames Default = 0 (for infinite)
TFCI coding	O		Enumerated (4,8,16,32)	Describes the way the TFCI bits are coded. Default: 1 TFCI bit coded with 4 bits. 2 TFCI bits coded with 8 bits. 3-5 TFCI bits coded with 16 bits. 6-10 TFCI bits coded with 32 bits.
Puncturing Limit	M			
Repetition period	O		Integer (1,2,4,8,16, 32,64)	Repetition period of the DPCHs. Default value is 1.
Repetition length	O		Integer (1...Repetition period – 1)	Length of the allocation for each repetition period. Default value is 1.
~~TFCI presence~~	~~O~~		~~Boolean~~	~~Coding for a TFCI field in a DPCH~~
Individual ~~DPCH~~Timeslot info		1 to < max ~~DPCH~~Timeslot count>		The first instance of the parameter Individual Timeslot Info corresponds to the timeslot that shall be used first by the physical layer, the second to the timeslot that shall be used second and so on.
>channelisation code	~~M~~	1 to <max Codes count>	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	~~Channelization codes to be used in the downlink for DPCH.~~ The first instance of the parameter Channelisation code corresponds to the first DPCH in that timeslot that shall be used first by the

				physical layer, the second to the DPCH in that timeslot that shall be used second and so on.
>Timeslot	M		Integer (0...14)	~~Timeslot of DPCH for each DPCH~~ Timeslot within a frame.
>TFCI presence	O		Boolean	If TFCI exists it shall be coded in the first DPCH in this timeslot. Default value is No TFCI.
>Burst type	O		Enumerated (Typ1, Typ2)	Short or long~~, for each time slot, for each DPCH~~ midamble for this timeslot.Default is burst type 1.
>Midamble shift	~~M~~O		Integer (0...MaxMidambleShift – 1)	Midamble shift for ~~each~~this timeslot ~~for each DPCH.~~ Default is set by layer 1.

Condition	**Explanation**
STTD	This IE is only sent if STTD is applied
SF	This IE is only sent if SF=128 or 256 is applied. If SF=256, value is 2,4 or 8 If SF=128, value is 4 or 8

Range Bound	**Explanation**
MaxChancount	Maximum number of channelization codes used for DL DPCH
MaxCodeNum	Maximum number of codes for one spreading factor (SF) is equal to SF-1.
Max~~DPCH~~Timeslotcount	Maximum number of timeslots used for DPCHs
MaxCodesCount	Maximum number of codes for one ~~DPCH~~timeslot.
MaxMidambleShift	Maximum number of Midamble Shifts

10.2.6.18 PICH Info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
Secondary scrambling code	O		Integer(0..14)	
Channelisation code	M		Integer(0..255)	SF is fixed and equal to 256
Number of PI per frame	M		Enumerated (18, 36 72 144)	
STTD indicator	O			
TDD				
Channelisation code	~~M~~O		Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)...(16/16))	Default is the channelisation code used by the SCCPCH carrying the associated PCH.
Timeslot	~~M~~O		Integer(0...14)	Default is the timeslot used by the SCCPCH carrying the associated PCH.
Burst type	O		Enumerated (Typ1,Typ2)	Default is the burst used by the SCCPCH carrying the associated PCH.
Midamble shift	~~M~~O		Integer (0...maxMidambleShift – 1)	Default is the midamble shift used by the SCCPCH carrying the associated PCH.
Offset	~~M~~O		Integer (0...~~63~~Repetition period - 1)	SFN mod Repetitionperiod = Offset.
Repetition period	~~M~~O		Integer (~~1, 2,~~ 4, 8, 16, 32, 64)	Repetition period of the PICH. Default value is 64.
Repetition length	~~M~~O		Integer (2, 4, 8)	Length of the allocation for each repetition period. Default value is 2.
Paging Indicator length	~~M~~O		Integer (4, 8, 16)	Indicates the length of one paging indicator. Default is 4.

10.2.6.28 PUSCH info (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Activation time	M		Integer (0..255)	Frame number start of allocation. Default is Activation time in UE information elements.
Duration	M		Integer (0..255)	Total number of frames
Puncturing Limit	M			
TFCI coding	O		Enumerated (4,8,16,32)	Describes the way the TFCI bits are coded. Default: 1 TFCI bit coded with 4 bits. 2 TFCI bits coded with 8 bits. 3-5 TFCI bits coded with 16 bits. 6-10 TFCI bits coded with 32 bits.
Repetition Period	O		Integer (1, 2, 4, 8, 16, 32, 64)	~~SFN modulo 64~~Repetition period for the DPCHs ~~= repetition period.~~ Default value 1.
Repetition length	O		Integer (1 ... Repetition ~~length~~period –1)	Length of the allocation for each repetition period. Default value is 1.
~~TFCI presence~~	~~O~~		~~Boolean~~	~~Coding for a TFCI field~~
Individual ~~PUSCH~~Timeslot info		1 to <max~~PUSCH~~Timeslotcount>		~~Different for each PUSCH~~ The first instance of the parameter Individual Timeslot Info corresponds to the timeslot that shall be used first by the physical layer, the second to the timeslot that shall be used second and so on.
channelization code	~~M~~	1 to < max Codes count>	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8), (16/1)... (16/16))	~~Channalisation codes to be used in the uplink~~ The first instance of the parameter Channelisation code corresponds to the first PUSCH in that timeslot that shall be used first by the physical layer, the second to the PUSCH in that timeslot that shall be used second and so on.
Timeslot	M		Integer (0...14)	~~Timeslot number~~ Timeslot within a frame.
TFCI existence	O		Boolean	If the TFCI exists it shall be coded in the first PUSCH in this timeslot. Default value is No TFCI.
Burst Type	O		Enumerated (Typ1, Typ2)	Short or long midamble. for this timeslot.Default is burst type 1.
Midamble Shift	~~M~~O		Integer (0...maxMidambleShift – 1)	Midamble shift ~~of the PUSCH~~ for this timeslot. Default is set by layer 1.

Range Bound	Explanation
Max~~PUSCH~~Timeslotcount	Maximum number of timeslots used for PUSCH's
MaxCodesCount	Maximum number of codes for PUSCH

10.2.6.29 PDSCH info (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Activation time	M		Integer (0...255)	Frame number start of allocation period. Default is Activation time in UE information elements.
Duration	M		Integer (0...255)	Total number of frames
Repetition Period	O		Integer (1, 2, 4, 8, 16, 32, 64)	Repetition period. Default value is 1.
Repetition length	O		Integer (1 ... Repetition length –1)	Length of the allocation for each repetition. Default value is 1.
~~TFCI presence~~	~~O~~		~~Boolean~~	~~Coding for TFCI~~
TFCI coding	O		Enumerated (4,8,16,32)	Describes the way the TFCI bits are coded. Default: 1 TFCI bit coded with 4 bits. 2 TFCI bits coded with 8 bits. 3-5 TFCI bits coded with 16 bits. 6-10 TFCI bits coded with 32 bits.
Puncturing Limit	M			
Individual ~~PDSCH~~Timeslot info		1 to <max~~PDSCH~~Timeslotcount>		~~Different for each PDSCH~~ The first instance of the parameter Individual Timeslot Info corresponds to the timeslot that shall be used first by the physical layer, the second to the timeslot that shall be used second and so on.
channelization codes	M	1 to <max codes count>	Enumerated ((1/1), (2/1), (2/2), (4/1)...(4/4), (8/1)...(8/8). (16/1)... (16/16))	~~List of channelization codes used in the downlink for PDSCH~~ The first instance of the parameter Channelisation code corresponds to the first PDSCH in that timeslot that shall be used first by the physical layer, the second to the PDSCH in that timeslot that shall be used second and so on.
Timeslot	M		Integer (0...14)	~~Timeslot number~~ Timeslot within a frame.
TFCI existence	O		Boolean	If the TFCI exists it shall be coded in the first PDSCH in this timeslot. Default value is No TFCI.
Burst Type	~~M~~O		Enumerated (Typ1, Typ2)	Short or long midamble for this timeslot.Default is burst type 1.
Midamble Shift	~~M~~O		Integer (0... max Midamble Shift is –1)	Midamble shift ~~of the PDSCH~~ for this timeslot. Default is set by layer 1.

Range Bound	Explanation

Max~~PDSCH~~Timeslotcount	Maximum number of timeslots used for PDSCH's
Max-Codescount	Maximum number of codes for PDSCH

3GPP TSG-RAN Meeting #6
Nice, France, 13-15 December 1999

Document* *(R2-99i08)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	**CR**	**064**	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN #6 *list expected approval meeting # here ↑*	for approval	X	strategic		*(for SMG use only)*
	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: RRC procedure interactions

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	
A	Corresponds to a correction in an earlier release	
B	Addition of feature	
C	Functional modification of feature	X
D	Editorial modification	

Release:

Phase 2	
Release 96	
Release 97	
Release 98	
Release 99	X
Release 00	

Reason for change:

The specification of allowed and forbidden procedure interactions is proposed.

- The UE dedicated paging procedure (PAGING TYPE 2 message) may be initiated when another RRC procedure is ongoing, without affecting the state of the latter procedure.
- The direct transfer procedure may be initiated when another RRC procedure is ongoing, without affecting the state of the latter procedure.
- The variable ORDERED_CONFIG is added for indicating an ongoing radio bearer, physical or transport channel reconfiguration or hard handover.
- The variable ORDERED_ASU is added for indicated an ongoing active set update procedure.
- Simultaneous radio bearer control or active set update procedures is not allowed.
- The transport format combination control procedure may be initiated during some other ongoing procedures, including active set update and transfer of UE capability information.
- A TRANSPORT FORMAT COMBINATION CONTROL FAILURE message is added used in the case when a TRANSPORT FORMAT COMBINATION CONTROL message is received during an ongoing radio bearer control procedure.
- An RRC STATUS message is added, for indication of protocol errors, e.g. usage of forbidden combination of procedures.

Clauses affected:

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

8.1.8.2 Initiation of direct transfer procedure in the UE

In the UE, the direct transfer procedure shall be initiated, when the upper layers request a transfer of a NAS message. When not stated otherwise elsewhere, the UE may initiate the direct transfer procedure also when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected. The UE shall transmit the DIRECT TRANSFER message on the uplink DCCH using AM RLC.

The UE shall set IE "CN domain identity" to indicate which CN node the NAS message is destined to.

In, CELL_FACH state, the UE shall include IE "Measured results" into the DIRECT TRANSFER message, if the message is sent to establish a signalling connection and if RACH measurement reporting has been requested in the IE “Intra-frequency reporting quantity for RACH reporting” and the IE “Maximum number of reported cells on RACH” in system information block type 12.

8.1.8.3 Initiation of direct transfer procedure in the UTRAN

In the UTRAN, the direct transfer procedure shall be initiated, when the upper layers request the transfer of a NAS message or the release of a signalling connection (FFS). The UTRAN may initiate the direct transfer procedure also when another RRC procedure is ongoing, and in that case the state of the latter procedure shall not be affected. The UTRAN shall transmit the DIRECT TRANSFER message on the downlink DCCH using AM RLC.

The UTRAN sets the IE "CN domain identity" to indicate, which CN domain the NAS message is originated from.

8.1.8.4 Reception of DIRECT TRANSFER in message bythe UTRAN

Upon reception of the DIRECT TRANSFER message the NAS message should be routed to the correct CN domain using the IE "CN domain identity".

If the IE "Measured results" is present in the message, the UTRAN shall extract the contents to be used for radio resource control.

When the UTRAN receives a DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

8.1.8.5 Reception of a DIRECT TRANSFER message by the UE

Upon reception of the DIRECT TRANSFER message, the UE RRC shall using the IE “CN Domain identity”,

- route the contents of the higher layer PDU, if any, to the correct higher layer entity.
- route the signalling connection release indication, if any, to the correct higher layer entity (FFS).

When the UE receives a DIRECT TRANSFER message, it shall not affect the state of any other ongoing RRC procedures when not stated otherwise elsewhere.

8.1.9.2 Initiation

For an UE in states CELL_DCH or CELL_FACH, UTRAN initiates the procedure by transmitting a PAGING TYPE 2 message on the DCCH. When not stated otherwise elsewhere, the UTRAN may initiate the UE dedicated paging procedure also when another RRC procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

8.1.9.3 Reception of an PAGING TYPE 2 message by the UE

When the UE receives a PAGING TYPE 2 message, it shall not affect the state of any other ongoing RRC procedures, when not stated otherwise elsewhere.

The UE shall indicate paging and forward the paging cause and the paging record type indetifier to the upper layer entity indicated by the CN domain identity.

8.2.1.3 Reception of a RADIO BEARER SETUP message by the UE

Upon reception of a RADIO BEARER SETUP message the UE shall perform actions as specified below and transmit a RADIO BEARER SETUP COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the RADIO BEARER SETUP COMPLETE message has been confirmed by RLC the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

The UE shall

- For the new radio bearer(s), use the multiplexing option applicable for the transport channels used according to the IE "RB mapping info"
- For radio bearer(s) existing prior to the message, use the multiplexing option applicable for the transport channels used, according to their IE "RB mapping info" or their previously stored multiplexing options.
- Configure MAC multiplexing if that is needed in order to use said transport channel(s).
- Use MAC logical channel priority when selecting TFC in MAC.

If the IE "New C-RNTI" is included, the UE shall

- Use that C-RNTI when using common transport channels of type RACH, FACH and CPCH in the current cell.

If neither the IE "PRACH info" nor the IE "Uplink DPCH info" is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink.

If neither the IE "Secondary CCPCH info" nor the IE "Downlink DPCH info" is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the transport channel(s) applicable for the physical channel types that is used. If neither the IE "TFS" is included or previously stored in the UE for that transport channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

The UE shall enter a state according to 8.5.8.

8.2.1.4 Unsupported configuration in the UE

If UTRAN instructs the UE to use a configuration that it does not support, the UE transmit a RADIO BEARER SETUP FAILURE message on the DCCH using AM RLCand set the IE "failure cause" the cause value "configuration unacceptable".

When the transmission of the RADIO BEARER SETUP FAILURE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.1.x Incompatible simultaneous reconfiguration

If the variable ORDERED_CONFIG is set upon the reception of the RADIO BEARER SETUP message, the UE shall

- keep the old configuration as before the RADIO BEARER SETUP message was received
- transmit an RRC STATUS message on the DCCH using AM RLC. When the transmission of RRC STATUS message has been confirmed by RLC the procedure ends and the UE shall clear the variable ORDERED_CONFIG and resume normal operation as if no RADIO BEARER SETUP message had been received.

8.2.2.3 Reception of RADIO BEARER RECONFIGURATION by the UE in CELL_DCH state

Upon reception of a RADIO BEARER RECONFIGURATION message in CELL_DCH state, the UE shall perform actions specified below.

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

The UE shall

- For each reconfigured radio bearer or signalling link, use the multiplexing option applicable for the transport channels used according to the IE “RB mapping info”
- Configure MAC multiplexing if that is needed in order to use said transport channel(s).
- Use MAC logical channel priority when selecting TFC in MAC.
- Suspend or resume uplink transmission for each radio bearer, as indicated by the IE "RB suspend/resume" information element.

If neither the IE “PRACH info” nor the IE “Uplink DPCH info” is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in.

If neither the IEs “Secondary CCPCH info” nor “Downlink DPCH info” is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the transport channel(s) applicable for the physical channel types that is used. If neither the IE “TFS” is included or previously stored in the UE for that transport channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

If the IE “Primary CCPCH info” and the IE “New C-RNTI” are included, the UE shall

- Select the cell indicated by the IE “Primary CCPCH info”.
    - Use the given C-RNTI when using common transport channels of type RACH, FACH and CPCH in that given cell after having completed the transition to that cell.

The UE shall enter a state according to 8.5.8.

The UE shall transmit a RADIO BEARER RECONFIGURATION COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the RADIO BEARER RECONFIGURATION COMPLETE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

If the RADIO BEARER RECONFIGURATION message is used to initiate a transition from CELL_DCH to CELL_FACH state, the RADIO BEARER RECONFIGURATION COMPLETE message shall be transmitted on the RACH after the UE has completed the state transition. The UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.2.4 Reception of an RADIO BEARER RECONFIGURATION message by the UE in CELL_FACH state

Upon reception of a RADIO BEARER RECONFIGURATION message in CELL_FACH state, the UE shall perform actions specified below.

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

The UE shall

- For each reconfigured radio bearer or signalling link, use the multiplexing option applicable for the transport channels used according to the IE “RB mapping info”
- Configure MAC multiplexing if that is needed in order to use said transport channel(s).
- Use MAC logical channel priority when selecting TFC in MAC.
- Suspend or resume uplink transmission for each radio bearer, as indicated by the IE "RB suspend/resume".

If the IE “New C-RNTI” is included, the UE shall

- Use that C-RNTI when using common transport channels of type RACH, FACH and CPCH in the current cell.

If neither the IE “PRACH info” nor the IE “Uplink DPCH info” is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink

If neither the IE “Secondary CCPCH info” nor the IE “Downlink DPCH info” is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the transport channel(s) applicable for the physical channel types that is used. If neither the IE “TFS” is included or previously stored in the UE for that transport channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

The UE shall enter a state according to 8.5.8.

The UE shall transmit a RADIO BEARER RECONFIGURATION COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the RADIO BEARER RECONFIGURATION COMPLETE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.2.5 Reception of a RADIO BEARER RECONFIGURATION COMPLETE message by the UTRAN

When UTRAN has received the RADIO BEARER RECONFIGURATION COMPLETE message, UTRAN may delete the old configuration..

8.2.2.6 Unsupported configuration in the UE

If the UTRAN instructs the UE to use a configuration which it does not support, the UE shall

- transmit a RADIO BEARER RECONFIGURATION FAILURE message on the DCCH using AM RLC.
- set the cause value in IE "failure cause" to "configuration unacceptable".

When the transmission of the RADIO BEARER RECONFIGURATION FAILURE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.1.x Incompatible simultaneous reconfiguration

If the variable ORDERED_CONFIG is set upon the reception of the RADIO BEARER RECONFIGURATION message, the UE shall

- keep the old configuration as before the RADIO BEARER RECONFIGURATION message was received
- transmit an RRC STATUS message on the DCCH using AM RLC. When the transmission of RRC STATUS message has been confirmed by RLC the procedure ends and the UE shall clear the variable ORDERED_CONFIG and resume normal operation as if no RADIO BEARER RECONFIGURATION message had been received.

8.2.3.3 Reception of RADIO BEARER RELEASE by the UE

Upon reception of a RADIO BEARER RELEASE message the UE shall perform the following.

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

The UE shall

- For the released radio bearer(s), delete all stored multiplexing options
- For all remaining radio bearer(s), use the multiplexing option applicable for the transport channels used according to their IE "RB mapping info" or their previously stored multiplexing options.
- Configure MAC multiplexing if that is needed in order to use said transport channel(s).
- Use MAC logical channel priority when selecting TFC in MAC.

If the IE "New C-RNTI" is included, the UE shall

- Use that C-RNTI when using common transport channels of type RACH, FACH and CPCH in the current cell.

If neither the IE "PRACH info" nor the IE "Uplink DPCH info" is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink.

If neither the IE "Secondary CCPCH info" nor the IE "Downlink DPCH info" is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the transport channel(s) applicable for the physical channel types that is used. If neither the IE "TFS" is included or previously stored in the UE for that transport channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information
    - If the RADIO BEARER RELEASE message is used to initiate a state transition to the CELL_FACH state and if an IE primary CCPCH info and C-RNTI to a given cell is included, the UE shall elect the cell indicated by the PCCPCH info IE.
    - Use the C-RNTI when using common transport channels of type RACH, FACH and CPCH in that given cell after having completed the transition to that cell.

The UE shall enter a state according to 8.5.8.

The UE shall transmit a RADIO BEARER RELEASE COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the RADIO BEARER RELEASE COMPLETE message has been confirmed by RLC the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

If the RADIO BEARER RELEASE message is used to initiate a transition from CELL_DCH to CELL_FACH state, the RADIO BEARER RELEASE COMPLETE message shall be transmitted on the RACH after the UE has completed the state transition.

8.2.3.4 Unsupported configuration in the UE

If UTRAN instructs the UE to use a configuration that it does not support, the UE shall Transmit a RADIO BEARER RELEASE FAILURE message on the DCCH using AM RLCand set the value of the IE "failure cause" to "configuration unacceptable".

When the transmission of the RADIO BEARER RELEASE FAILURE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.1.x Incompatible simultaneous reconfiguration

If the variable ORDERED_CONFIG is set upon the reception of the RADIO BEARER RELEASE message, the UE shall

- keep the old configuration as before the RADIO BEARER RELEASE message was received
- transmit an RRC STATUS message on the DCCH using AM RLC. When the transmission of RRC STATUS message has been confirmed by RLC the procedure ends and the UE shall clear the variable ORDERED_CONFIG and resume normal operation as if no RADIO BEARER RELEASE message had been received.

8.2.4.3 Reception of an TRANSPORT CHANNEL RECONFIGURATION message by the UE in CELL_DCH state

Upon reception of a TRANSPORT CHANNEL RECONFIGURATION message in CELL_DCH state, the UE shall perform the following actions.

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

If neither the IE "PRACH info" nor the IE "Uplink DPCH info" is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink.

If neither the IE "Secondary CCPCH info" nor the IE "Downlink DPCH info" is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the transport channel(s) applicable for the physical channel types that is used. If the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

If the TRANSPORT CHANNEL RECONFIGURATION message is used to initiate a state transition to the CELL_FACH state and if the IE "Primary CCPCH info" and IE "New C-RNTI" to a given cell is included, the UE shall

- Select the cell indicated by the IE "Primary CCPCH info".
    - Use the C-RNTI when using common transport channels of type RACH, FACH and CPCH in that given cell after having completed the transition to that cell.

The UE shall enter a state according to 8.5.8.

The UE shall transmit a TRANSPORT CHANNEL RECONFIGURATION COMPLETE message on the uplink DCCH using AM RLC. If the TRANSPORT CHANNEL RECONFIGURATION message is used to initiate a transition from CELL_DCH to CELL_FACH state, the TRANSPORT CHANNEL RECONFIGURATION COMPLETE message shall be transmitted on the RACH after the UE has completed the state transition. When the transmission of the TRANSPORT CHANNEL RECONFIGURATION COMPLETE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.4.4 Reception of an TRANSPORT CHANNEL RECONFIGURATION message by the UE in CELL_FACH state

Upon reception of a TRANSPORT CHANNEL RECONFIGURATION message in CELL_FACH state, the UE shall perform the following

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

If the IE "New C-RNTI" is included, the UE shall

- Use that C-RNTI when using common transport channels of type RACH, FACH and CPCH in the current cell.

If neither the IE "PRACH info" nor IE "Uplink DPCH info" is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink

If neither the IE "Secondary CCPCH info" nor IE "Downlink DPCH info" is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the transport channel(s) applicable for the physical channel types that is used. If the IE "TFS" is neither included nor previously stored in the UE for that transport channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

The UE shall enter a state according to 8.5.8.

The UE shall transmit a TRANSPORT CHANNEL RECONFIGURATION COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the TRANSPORT CHANNEL RECONFIGURATION COMPLETE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.4.5 Reception of the TRANSPORT CHANNEL RECONFIGURATION COMPLETE message by the UTRAN

When UTRAN has received the TRANSPORT CHANNEL RECONFIGURATION COMPLETE message, UTRAN may delete any old configuration andthe procedure ends on the UTRAN side.

8.2.4.6 Unsupported configuration in the UE

If the UTRAN instructs the UE to use a configuration which it does not support, the UE shall

- transmit a TRANSPORT CHANNEL RECONFIGURATION FAILURE message on the DCCH using AM RLC and set th cause value in IE "Failure Cause" to "configuration unacceptable".

When the transmission of the TRANSPORT CHANNEL RECONFIGURATION FAILURE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.1.x Incompatible simultaneous reconfiguration

If the variable ORDERED_CONFIG is set upon the reception of the TRANSPORT CHANNEL RECONFIGURATION message, the UE shall

- keep the old configuration as before the TRANSPORT CHANNEL RECONFIGURATION message was received
- transmit an RRC STATUS message on the DCCH using AM RLC. When the transmission of RRC STATUS message has been confirmed by RLC the procedure ends and the UE shall clear the variable ORDERED_CONFIG and resume normal operation as if no TRANSPORT CHANNEL RECONFIGURATION message had been received.

8.2.5.2 Initiation

The UTRAN shall transmit the TRANSPORT FORMAT COMBINATION CONTROL message on the donwlink DCCH using AM or UM RLC. When not stated otherwise elsewhere, the UE may initiate the transport format combination control procedure also when another procedure is ongoing, and in that case the state of the latter procedure shall not be affected.

UTRAN should not initiate a transport format combination control procedure, during while awaiting the completion of the following procedures:

- Radio bearer establishment
- Radio bearer release
- Radio bearer reconfiguration
- Transport channel reconfiguration
- Physical channel reconfiguration

8.2.5.3 Reception of a TRANSPORT ~~CHANNEL~~ FORMAT COMBINATION CONTROL message by the UE

Upon reception of the TRANSPORT ~~CHANNEL~~ FORMAT COMBINATION CONTROL message, and if the variable ORDERED_CONFIG is not set the UE shall configure the allowed transport format combinations as defined in subclause 8.5.7.5.3.

8.2.5.4 Incompatible simultaneous reconfiguration

If the variable ORDERED_CONFIG is set, the UE shall

- keep the TFC subset as before the TRANSPORT FORMAT COMBINATION CONTROL message was received
- transmit a TRANSPORT FORMAT COMBINATION CONTROL FAILURE message on the DCCH using AM RLC. The UE shall set the IE “failure cause” to “incompatible simultaneous reconfiguration”. When the transmission of TRANSPORT FORMAT COMBINATION CONTROL FAILURE message has been confirmed by RLC the procedure ends.

8.2.6.3 Reception of a PHYSICAL CHANNEL RECONFIGURATION message by the UE in CELL_DCH state

Upon reception of a PHYSICAL CHANNEL RECONFIGURATION message, the UE shall perform the following actions.

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

If the IE "New C-RNTI" is included, the UE shall

- Use that C-RNTI when using common physical channels of type RACH, FACH and CPCH in the current cell.

If neither the IE "PRACH info" nor IE "Uplink DPCH info" is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink.

If neither the IE "Secondary CCPCH info" nor IE "Downlink DPCH info" is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the physical channel(s) applicable for the physical channel types that is used. If IE "TFS" is neither included or previously stored in the UE for that physical channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

If the PHYSICAL CHANNEL RECONFIGURATION message is used to initiate a state transition to the CELL_FACH state and if an IE "Primary CCPCH info" and IE "New C-RNTI" to a given cell is included, the UE shall

- Select the cell indicated by the IE "Primary CCPCH info".
    - Use the C-RNTI when using common transport channels of type RACH, FACH and CPCH in that given cell after having completed the transition to that cell.

The UE shall enter a state according to 8.5.8.

The UE shall transmit a PHYSICAL CHANNEL RECONFIGURATION COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the PHYSICAL CHANNEL RECONFIGURATION COMPLETE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

If the PHYSICAL CHANNEL RECONFIGURATION message is used to initiate a transition from CELL_DCH to CELL_FACH state, the PHYSICAL CHANNEL RECONFIGURATION COMPLETE message shall be transmitted on the RACH after the UE has completed the state transition. The UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.6.4 Reception of PHYSICAL CHANNEL RECONFIGURATION by the UE in CELL_FACH state

The UE shall store the received physical channel configuration and the activation time in the variable ORDERED_CONFIG.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

If the IE "New C-RNTI" is included, the UE shall

- Use that C-RNTI when using common physical channels of type RACH, FACH and CPCH in the current cell.

If neither the IE "PRACH info" nor IE "Uplink DPCH info" is included, the UE shall

- Let the physical channel of type PRACH that is given in system information be the default in uplink.

If neither the IE “Secondary CCPCH info” nor nor IE “Downlink DPCH info” is included, the UE shall

- Start to receive the physical channel of type Secondary CCPCH that is given in system information.

The UE shall use the physical channel(s) applicable for the physical channel types that is used. If neither the IE “TFS” is included or previously stored in the UE for that physical channel(s), the UE shall

- Use the TFS given in system information

If none of the TFS stored is compatible with the physical channel, the UE shall

- Delete stored TFS and use the TFS given in system information

The UE shall transmit a PHYSICAL CHANNEL RECONFIGURATION COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the PHYSICAL CHANNEL RECONFIGURATION COMPLETE message has been confirmed by RLC, the UE shall enter a state according to subclause 8.5.8 applied on the PHYSICAL CHANNEL RECONFIGURATION message. If the UE ends up in the CELL_PCH or URA_PCH state, it shall delete its C-RNTI. The UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.6.5 Reception of a PHYSICAL CHANNEL RECONFIGURATION COMPLETE message by the UTRAN

When UTRAN has received the PHYSICAL CHANNEL RECONFIGURATION COMPLETE message, UTRAN may delete any old configuration and the procedure ends on the UTRAN side.

UTRAN may delete the C-RNTI of the UE if the procedure caused the UE to leave the CELL_FACH state.

8.2.6.6 Unsupported configuration in the UE

If the UE instructs the UE to use a configuration which it does not support, the UE shall

- transmit a PHYSICAL CHANNEL RECONFIGURATION FAILURE message on the DCCH using AM RLC and shall set the cause value in IE "failure cause" to "configuration unacceptable".

When the transmission of the PHYSICAL CHANNEL RECONFIGURATION FAILURE message has been confirmed by RLC, the UE shall clear the variable ORDERED_CONFIG and the procedure ends.

8.2.1.x Incompatible simultaneous reconfiguration

If the variable ORDERED_CONFIG is set upon the reception of the PHYSICAL CHANNEL RECONFIGURATION message, the UE shall

- keep the old configuration as before the PHYSICAL CHANNEL RECONFIGURATION message was received
- transmit an RRC STATUS message on the DCCH using AM RLC. When the transmission of RRC STATUS message has been confirmed by RLC the procedure ends and the UE shall clear the variable ORDERED_CONFIG and resume normal operation as if no PHYSICAL CHANNEL RECONFIGURATION message had been received.

8.3.4.2 Reception of an ACTIVE SET UPDATE messages by the UE

~~•~~ Upon reception of an ACTIVE SET UPDATE message the UE shall store the received IE "Radio Link Addition Information" and the IE "Radio Link Removal Information" to the variable ORDERED_ASU. ~~8.3.4.2.1 Message ACTIVE SET UPDATE contents to use~~

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

The UE shall

- at first, add the RLs indicated in the IE "Radio Link Addition Information".
- remove the RLs indicated in the IE "Radio Link Removal Information" . If the UE active set is full or becomes full, an RL, which is indicated to remove, shall be removed before adding RL, which is indicated to add.
- If the ACTIVE SET UPDATE message includes the IE "U-RNTI",update its identity.
- If the ACTIVE SET UPDATE message includes the IE "CN domain identity" and the IE "NAS system information", the UE shall forward the content of the IE to the non-access stratum entity of the UE indicated by the IE "CN domain identity".
- transmit an ACTIVE SET UPDATE COMPLETE message on the uplink DCCH using AM RLC. When the transmission of the ACTIVE SET UPDATE COMPLETE message has been confirmed by RLC the contents of the variable ORDERED_ASU shall be cleared and the procedure ends on the UE side.

8.3.4.3 Abnormal case: Unsupported configuration in the UE

- If UTRAN instructs the UE to use a configuration that it does not support, or
- if a radio link in the IE "Radio Link Removal Information" in the ACTIVE SET UPDATE message is not part of the active set

the UE shall

- Keep the active set and the contents of the variable ORDERED_ASU, as it was before the ACTIVE SET UPDATE message was received
- Transmit a ACTIVE SET UPDATE FAILURE message on the DCCH using AM RLC.
- Set the IE "failure cause" to "configuration unacceptable".
- When the transmission of the ACTIVE SET UPDATE FAILURE message has been confirmed by RLC the procedure ends on the UE side.

8.3.4.x Incompatible simultaneous reconfiguration

If any of the variables ORDERED_CONFIG or ORDERED_ASU are set, the UE shall:

- Transmit an RRC STATUS message on the DCCH using AM RLC.
- When the transmission of the RRC STATUS message has been confirmed by RLC the procedure ends and the UE shall keep the active set and the contents of the variable ORDERED_ASU, as it was before the ACTIVE SET UPDATE message was received.

10.1.5.16a TRANSPORT FORMAT COMBINATION CONTROL FAILURE

This message is sent to indicate that a received TRANSPORT FORMAT COMBINATION CONTROL message could not be handled by the UE.

RLC-SAP: AM

Logical channel: DCCH

Direction: UE→UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

10.1.7.7 RRC STATUS

This message is sent to indicate a protocol error.

RLC-SAP: AM

Logical channel: DCCH

Direction: both

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			

10.2.3.30 Failure cause

Cause for failure to perform the requested procedure.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Failure cause	M		Enumerated (Configuration unacceptable, physical channel failure, incompatible simultaneous reconfiguration)	

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Document (R2-99j97)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	CR	066r1	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6 *list expected approval meeting # here ↑*	for approval	X	strategic		*(for SMG use only)*
	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 2 Dec 1999

Subject: Transfer of UE capabilities

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

1. In the current specification the UE will transfer its UTRAN specific capabilities in the message RRC CONNECTION SETUP COMPLETE. If the network also requests any inter-system capabilities (e.g. GSM classmark) this will be sent in a separate message (UE CAPABILITY INFORMATION) after the RRC connection has been established. In this CR it is proposed to include the IE "UE system specific capability" in the RRC CONNECTION SETUP COMPLETE message.

2. It is also proposed to move the IE "Capability Update Requirement" from system information block type 1 to the message RRC CONNECTION SETUP. The reasons for the change are the following:

- The request for and transfer of capabilities can be made within the same procedure.
- If UTRAN decides to establish the RRC connection in another cell than the one where the initial access was performed it is possible to request capabilities needed in the new cell during the RRC connection establishment procedure. One typical example is when UTRAN wants to handover the UE to another frequency when establishing the RRC connection. To avoid that the UE has to read system information prior to the establishment, the request for inter-system capabilities should be included in the RRC CONNECTION SETUP message.

3. In the current specification the procedure UE capability enquiry can only be used by UTRAN to enquire inter-system capabilities from the UE. In this CR it is proposed to add the possibility to also request an update of the UTRAN specific capabilities.

4. It should be possible for the UE to send either UTRAN specific capabilities or inter-system capabilities in the message UE CAPABILITY INFORMATION. Therefore it is proposed to change the presence indication for the IE "UE radio capability" from mandatory to optional. It is also proposed to remove the IEs "NAS message" and "CN domain identifier" from this

message.

5. In order to assign radio resources for the initial RRC connection UTRAN must have some knowledge about the features supported in the UE. This information is included in the IE “Initial UE capability” sent in the RRC CONNECTION REQUEST message. In the current specification it is not clear how to interpret the UE capabilities if this IE is not included in the message. Therefore it is proposed to change the presence indication for the IE “Initial UE capability” from optional to mandatory.

Clauses affected:	8.1.3.2, 8.1.3.4, 8.1.6.2, 10.1.4.6, 10.1.4.7, 10.1.4.8, 10.1.6.4.3, 10.1.7.1, 10.1.7.3, 10.2.3.25

Other specs affected:	Other 3G core specifications		→ List of CRs:	
	Other GSM core specifications		→ List of CRs:	
	MS test specifications		→ List of CRs:	
	BSS test specifications		→ List of CRs:	
	O&M specifications		→ List of CRs:	

Other comments:	

8.1.3.2 Initiation

The non-access stratum in the UE may request the establishment of at most one RRC connection per UE.

The UE shall transmit an RRC CONNECTION REQUEST message on the uplink CCCH, reset counter V300, and start timer T300.

The UE shall set the IE “Establishment cause” according to indications from the non-access stratum or according to the paging cause received from the PAGING TYPE 1 message.

The UE shall set the IE “Initial UE identity” according to subclause 8.5.1

The UE shall indicate its capability in the IE “Initial UE capability”. ~~*[Note: Currently this IE is optional. In that case the condition for including the IE needs to be specified.]*~~

The UE shall include ameasurement report, as specified in the IE “Intra-frequency reporting quantity for RACH reporting” and the IE “Maximum number of reported cells on RACH” in system information block type 11.

8.1.3.4 Reception of a RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" in the most recent RRC CONNECTION REQUEST message sent by the UE.

- If the values are identical, the UE shall stop timer T300, and perform the following actions.
- If the values are different, the UE shall ignore the rest of the message

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

The UE shall

- store the value of the IE "U-RNTI" and
- initiate the signalling link parameters according to the IE "Signalling link type" and the IE "RB mapping info".

If the IE "C-RNTI" is included, the UE shall

- use that C-RNTI on common transport channels in the current cell.

If neither the IE "PRACH info (for RACH)",nor the IE "Uplink DPCH info" is included, the UE shall

- let the physical channel of type PRACH that is given in system information to be the default in uplink for RACH

If neither the IE "Secondary CCPCH info",nor the IE "Downlink DPCH info" is included, the UE shall

- start to receive the physical channel of type Secondary CCPCH that is given in system information to be used as default by FACH.

The UE shall enter a state according to 8.5.8.

The UE shall transmit an RRC CONNECTION SETUP COMPLETE message on the uplink DCCH, with contents as specified below.

If requested in the IE "Capability update requirement" sent in the RRC CONNECTION SETUP message, t~~T~~he UE shall include its UTRAN specific capabilities in the IE "UE radio capability". ~~RRC CONNECTION SETUP COMPLETE message, according to the IE "Capability update requirement" in system information block type 1.~~

If requested in the IE "Capability update requirement" sent in the RRC CONNECTION SETUP message, the UE shall include its inter-system capabilities in the IE "UE system specific capability".

When the transmission of the RRC CONNECTION SETUP COMPLETE message has been confirmed by RLC the UE shall update its variable UE_CAPABILITY_TRANSFERRED which UE capabilities it has transmitted to the UTRAN and the procedure ends.

8.1.6.2 Initiation

The UE shall initiate the UE capability update procedure in the following situations:

- After the UE has received a UE CAPABILITY ENQUIRY message from the UTRAN.

- ~~After having performed cell reselection to a cell, and the IE "capability update requirement" in system information block type 1 indicates the necessity to transmit capability information which is indicated as previously sent in the variable UE_CAPABILITY TRANSFERRED.~~

- If UE capabilities stored in the variable UE_CAPABILITY_TRANSFERRED change during the RRC connection

The UE transmits the UE CAPABILITY INFORMATION message on the uplink DCCH using AM or UM RLC, starts timer T304 and resets counter V304.

~~If the UE CAPABILITY INFORMATION message is sent upon establishment of an RRC connection, the UE shall~~

~~- set CN specific capability information into the IE "NAS message" and UTRAN specific capability information to the corresponding information elements according to information stored in the UE.~~

~~- include one or more inter-system classmarks into the IEs "inter-system message", according to the requirement given in the "Capability update requirement" IE in the SYSTEM INFORMATION message~~

If the UE CAPABILITY INFORMATION message is sent in response to a UE CAPABILITY ENQUIRY message, the UE shall

- include the UTRAN~~MTS~~ specific UE capability information elements into the IE “UE radio capability”, according to the requirement given in the IE ~~if requsted in the IE “System” in the IE~~ "Capability update requirement"~~ IE~~ in the UE CAPABILITY ENQUIRY message.

- include one or more inter-system classmarks into the IE~~s~~ "UE system specific capability~~inter-system message~~", according to the requirement given in the IE “Capability update requirement~~System~~” ~~in the IE "Capability update requirement" ~~in the UE CAPABILITY ENQUIRY message

10.1.4.6 RRC CONNECTION REQUEST

RRC Connection Request is the first message transmitted by the UE when setting up an RRC Connection to the network.

RLC-SAP: TM

Logical channel: CCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
Establishment cause	M			
Initial UE capability	M~~O~~			~~Necessity is FFS~~
Measurement information elements				
Measurement information		1 to <MeasRep Count>		Send Measurement information for each measurement report in the message
Measurement identity number	M			Refers to system information. Note 1
Measured results	M			

Note 1: The necessity and usage of Measurement identity number in this message is FFS.

Range Bound	Explanation
MeasRepCoun	Number of measurement reports in the message

10.1.4.7 RRC CONNECTION SETUP

This message is used by the network to accept the establishment of an RRC connection for an UE, including assignment of signalling link information, transport channel information and optionally physical channel information.

RLC-SAP: UM

Logical channel: CCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
U-RNTI	M			
C-RNTI	O			Only if assigned to a common transport channel
Activation time	O			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Capability update requirement	M			
RB information elements				
RB identity	M			Indicates the signalling link
Signalling link type	M			
RB mapping info	M			For the signalling link
TrCH information elements				
TFCS	O			Uplink TFCS
TFCS	O			Downlink TFCS
CHOICE *mode*				
TDD				
TFCS Identity	O			Uplink TFCS
TFCS Identity	O			Downlink TFCS
TFC subset	O			
Uplink transport channel information		0 to <MaxULTrCHCount>		Send transport channel information for each new Uplink transport channel
Transport channel identity	M			
TFS	M			
Downlink transport channel information		0 to <MaxDLTrCHCount>		Send transport channel information for each new downlink transport channel
Transport channel identity	M			
TFS	M			
Transparent mode signalling info	C if TM_DCH	0 or 1		
PhyCH information elements				
Frequency info	O			
Maximum allowed UL TX power	O			
Uplink DPCH power control info	O			
Uplink radio resource information				
CHOICE channel requirement	O			
Uplink DPCH info				
PRACH info (for RACH)				
Downlink radio resource information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information		0 to <MaxRLcount>		Send downlink information for each radio link to be set-up
Primary CCPCH info				
Downlink DPCH info				
Secondary CCPCH info				
CHOICE *mode*				

FDD				
SSDT indicator	O			FFS
SSDT Cell ID	C ifSSDT			FFS
CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
Gated Transmission Control info	O, FFS			Note 3
Default DPCH Offset Value	O			
TDD				
Uplink Timing Advance	O			

Condition	**Explanation**
IfSSDT	This IE is sent only when SSDT is to be used
IfTM_DCH	This information is only sent if a DCH carrying transparent mode DCCH information is used, e.g. to send transport format combination commands.

Range Bound	**Explanation**
MaxULTrCHCoun	Maximum number of new uplink transport channels
MaxDLTrCHCount	Maximum number of new downlink transport channels
MaxRLcoun	Maximum number of radio links to be set up

CHOICE *channel requirement*	**Condition under which the given *channel requirement* is chosen**
Uplink DPCH info	
PRACH info	

Note 2: How to map UL and DL radio resource in the message is FFS.

Note 3: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.4.8 RRC CONNECTION SETUP COMPLETE

This message confirms the establishment of the RRC Connection by the UE.

RLC-SAP: AM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Ciphering hyperframe number	O			
Phy CH information elements				
CHOICE *mode*				
FDD				
SSDT indicator	O			FFS
UE information elements				
UE radio capability	O~~M~~			
UE system specific capability	O		Inter-system message	

10.1.6.4.3 System Information Block type 1

The system information block type 1 contains NAS system information as well as UE timers and counters to be used in idle mode.

Area scope: PLMN

UE mode: idle mode

Information Element	Presence	Range	IE type and reference	Semantics description
Other information elements				
Value tag	M			
CN information elements				
CN information		1 to <maxCNdomains>		Send CN information for each CN domain.
CN domain identity	M			
NAS system information	M			
CN DRX cycle length	M			
UE information				
UE Timers and counters	M			*Note: Only timers and counters used in idle mode*
~~Capability update requirement~~	~~O~~			

Range Bound	Explanation
MaxCNdomains	Maximum number of CN domains

10.1.7.1 UE CAPABILITY INFORMATION

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
~~**CN information elements**~~				
~~CN domain identifier~~	~~M~~			
~~NAS message~~	~~M~~			~~Includes the CN capability information~~
UE information elements				
UE radio capability	O~~M~~			
Other information elements				
UE system specific capability~~Inter-system message~~	O		Inter-system message	Includes inter-system classmark

10.1.7.3 UE CAPABILITY ENQUIRY

The UE CAPABILITY ENQUIRY message is used by the UTRAN to request specific UE capability information. ~~enquire inter-system classmarks from the UE.~~

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Capability update requirement	M			
~~System~~	~~M~~		~~Enumerated (GSM,..)~~	

10.2.3.25 Capability Update Requirement

This IE indicates to the UE~~,~~ which specific capabilities to transfer to the network.~~is capable of inter system handover, whether it should send a complete update of its capabilities in the given system (e.g. GSM) immediately after having established an RRC connection.~~

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
UE radio capability update requirement	M		Boolean	
System specific capability update requirement	~~M~~	0 to <MaxSystemCount>	Enumerated (GSM,..)	
~~Early Capability Update~~	~~M~~		~~Boolean~~	

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Document (R2-99i20)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	CR	074	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN #6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from:* ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: CN information elements

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	
A	Corresponds to a correction in an earlier release	
B	Addition of feature	
C	Functional modification of feature	X
D	Editorial modification	

Release:

Phase 2	
Release 96	
Release 97	
Release 98	
Release 99	X
Release 00	

Reason for change:

A detailed specification of the core network information elements including type definitions is missing in tabular format. This change request proposes such a specification.

- The CN domains are “CS domain” and “PS domain” which is aligned with RAN3 and SA2 terminology.
- The specification of the identities IMSI, TMSI, P-TMSI, IMEI, LAI and RAI for a GSM-MAP type of core network is also added (with reference to TS 23.003) since they are used in RRC messages.
- The IE “NAS system info” is modified so it can be used also for carrying information that is common for both CN domains (such as LAI), not just PS or CS domain specific information. One occurrence of the “NAS system info” in a number of RRC messages is therefore added to carry this CN domain common info.
- The IE “CN DRX cycle length” is removed, since a common IE type for both CN and UTRAN DRX cycle length can be used.

Clauses affected: 8.1.2.3, 8.5.7.1 (new), 10.1, 10.2.1, 10.2.3.7

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

2. References

References may be made to:

a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply;

b) all versions up to and including the identified version (identified by "up to and including" before the version identity);

c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or

d) publications without mention of a specific version, in which case the latest version applies.

A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1] 3GPP TR 25.990, “Vocabulary”

[2] 3GPP TS 25.301, “Radio Interface Protocol Architecture”

[3] 3GPP TS 25.303, “Inter-layer procedures in connected mode”

[4] 3GPP TS 25.304, “UE procedures in idle mode”

[5] 3GPP TS 24.008, “Mobile radio interface layer 3 specification, Core Network Protocols - Stage 3”

[6] 3GPP TS 25.103, “RF Parameters in Support of RRM”

[7] 3GPP TS 25.215, “Physical layer – Measurements (FDD)”

[8] 3GPP TS 25.225, “Physical layer – Measurements (TDD)”

[9] 3GPP TS 25.401, “UTRAN overall description”

[10] 3GPP TS 25.402, “Synchronisation in UTRAN, stage 2”

[11] 3GPP TS 23.003, “Numbering, addressing and identification”

8.1.2.3 Reception of an PAGING TYPE 1 message by the UE

The UE shall in idle mode, CELL_PCH state and URA_PCH state receive the paging information for all its monitored paging occasions. For an UE in idle mode, the paging occasions are specified in TS 25.304 and depend on the IE "CN domain specific DRX cycle length coefficient", as specified in 8.5.7.1.1. For an UE in CELL_PCH state and URA_PCH state the paging occasions occasions occasions depend on the "UTRAN DRX Cycle length" and the "DRX indicator", as specified in subclause 8.5.7.3.6 and 8.5.3.7 respectively.

8.5.7 Generic actions on receipt of an information element

8.5.7.1 CN information elements

8.5.7.1.1 CN domain specific DRX cycle length coefficient

If the IE "CN domain specific DRX cycle length coefficient" is present, the UE shall use it to calculate the DRX cycle length, according to the following:

Set k to the value of the IE "CN domain specific DRX cycle length coefficient".

Store the result of 2^k *PBP, where PBP is the Paging Block Periodicity, as the DRX cycle length for the CN domain as indicated by the IE "CN domain identity."

The UE shall determine its idle mode paging occasions and PICH monitoring occasions for that CN domain, according to TS 25.304, based on the stored DRX cycle length, when using DRX in idle mode.

10.1.1.1 ACTIVE SET UPDATE (FDD only)

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	O			New U-RNTI
Activation time	O			
Ciphering mode info	O			
CN information elements				
PLMN identity	O			(Note3)
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note3)
CN domain specific GSM-MAP NAS system info	O		GSM-MAP NAS system information	(Note3)

10.1.1.5 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.

RLC-SAP: UM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Ciphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
CN domain specific GSM-MAP NAS system info	O		GSM-MAP NAS system information	(Note1,2)

10.1.1.6 HANDOVER COMMAND

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
CHOICE *mode*				
TDD				
New C-RNTI				
Ciphering mode info	O			
CN information elements	O			
PLMN identity	O			(Note2)
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note2)
CN domain specific GSM-MAP NAS system info	O		GSM-MAP NAS system information	(Note2)

10.1.1.12 URA UPDATE CONFIRM

This message confirms the URA update procedure and can be used to reallocate new RNTI information for the UE valid after the URA update.

RLC-SAP: UM

Logical channel: CCCH or DCCH

Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	C-CCCH			
New U-RNTI	O			
New C-RNTI	O			
UTRAN DRX cycle length	O			
DRX Indicator	O			
Ciphering mode info	O			
UTRAN mobility information elements				
URA identifier	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
CN domain specific GSM-MAP NAS system info	O		GSM-MAP NAS system information	(Note1,2)

10.1.1.13 RNTI REALLOCATION

<Functional description of this message to be included here>

RLC-SAP: AM or UM

Logical channel: DCCH

Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Ciphering mode info	O			
CN information elements				
PLMN identity	O			(Note1,2)
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1,2)
CN domain specific GSM-MAP NAS system info	O		GSM-MAP NAS system information	(Note1,2)

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT

<Functional description of this message to be included here>

RLC-SAP: UM

Logical channel: CCCH, DCCH

Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
Activation time	O			
CN information elements				
PLMN identity	O			(Note1)
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		0 to <MaxNoCNdomains>		CN related information to be provided for each CN domain
CN domain identity	O			(Note1)
CN domain specific GSM-MAP NAS system info	O		GSM-MAP NAS system information	(Note1)

10.1.6.4.3 System Information Block type 1

The system information block type 1 contains NAS system information for a GSM-MAP based CN as well as UE timers and counters to be used in idle mode.

Area scope: PLMN

UE mode: idle mode

Information Element	Presence	Range	IE type and reference	Semantics description
Other information elements				
Value tag	M			
CN information elements				
CN common GSM-MAP NAS system information	O		GSM-MAP NAS system information	
CN domain related information		1 to <maxCNdomains>		Send CN information for each CN domain.
CN domain identity	M			
CN domain specific GSM-MAP NAS system information	M		GSM-MAP NAS system information	
CN domain specific DRX cycle length coefficient	M		DRX cycle length coefficient	

10.2 Information element functional definitions

10.2.1 CN Information elements

10.2.1.1 CN domain identity

~~Points out the core network domain (e.g. IP or PSTN/ISDN CN domain).~~ Identifies the type of core network domain.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CN domain identity	M		Enumerated (CS domain, PS domain)	

10.2.1.2 NAS binding info

A field with non-access stratum information to bind a RB to the non-access stratum. This information is transparent to RRC.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
NAS binding info	M		Bit string (16)	

10.2.1.3 NAS message

A non-access stratum message to be transferred transparently through UTRAN.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
NAS message	M		Bit string (0..maxNAS messagelength)	

10.2.1.4 GSM-MAP NAS system information

This information element contains ~~S~~system information that belongs to the non-access stratum ~~(e.g. LAC, RA code etc)~~ for a GSM-MAP type of core network. This information is transparent to RRC. It may contain either information specific to one CN domain (CS or PS) or information common for both CN domains.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
GSM-MAP NAS system information	M		Bit string(0..maxNASsystemiinfoLength)	

10.2.1.5 PLMN identity

This information element identifies a Public Land Mobile Network for a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
PLMN identity				Setting of digits is defined in [TS 24.003]
> MCC, Mobile Country Code	M			
>> MCC digit		3	INTEGER(0..9)	
> MNC, Mobile Network Code	M			
>> MNC digit		3	INTEGER(0..9)	

~~10.2.1.6 CN DRX cycle length~~

~~Indicates the time interval between monitoring paging occasions to be used by a UE when attached to a specific Core Network.~~

10.2.1.7 CN Type

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CN Type	M		Enumerated (GSM-MAP, ANSI-41)	Identifies the type of core network. This IE shall be used to control the interpretation of network dependent messages and information elements in the RRC protocol.

10.2.1.8 IMSI (GSM-MAP)

This IE contains an International Mobile Subscriber Identity, used towards a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
IMSI (GSM-MAP)	M			Setting specified in [TS 23.003]
> IMSI digit		6 to 15	INTEGER(0..9)	

10.2.1.9 TMSI (GSM-MAP)

This IE contains an Temporary Mobile Subscriber Identity, used towards a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
TMSI (GSM-MAP)	M		Bitstring (32)	Setting specified in [TS 23.003]

10.2.1.10 P-TMSI (GSM-MAP)

This IE contains an Packet Temporary Mobile Subscriber Identity, used towards a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
P-TMSI	M		Bit string (32)	Setting specified in [TS 23.003]

10.2.1.11 IMEI

This IE contains an International Mobile Equipment Identity.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
IMEI	M			Setting specified in [TS 23.003]
> IMEI digit		15	INTEGER(0..9)	

10.2.1.12 Location Area Identification

Identifies uniquely a location area for a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Location Area Identification	M			Setting specified in [TS 23.003]
> PLMN identity	M		PLMN identity	
> LAC	M		Bit string(16)	

10.2.1.13 Routing Area Code

Identifies a routing area within a location area for a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Routing Area Code	M		Bit string(8)	Setting specified in [TS 23.003]

10.2.1.14 Routing Area Identification

Identifies uniquely a routing area for a GSM-MAP type of core network.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Routing Area Identification	M			Setting specified in [TS 23.003]
> LAI	M		Location Area Identification	
> RAC	M		Routing Area Code	

10.2.3.7 Paging record

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Paging originator	M		Enumerated (UTRAN,CN)	
Paging cause	C isCN			
CN domain identity	C isCN			
CHOICE CN Identity	C idleMode			
IMSI (GSM-MAP)			~~TS~~ 24.008IMSI (GSM-MAP)	
TMSI (GSM-MAP)			~~TS~~ 24.008TMSI (GSM-MAP)	
P-TMSI (GSM-MAP)			~~TS~~ 24.008P-TMSI	
U-RNTI	C connected Mode			

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***Document* (R2-99i22)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	CR	076	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)* (U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 1999-11-29

Subject: UE information elements

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X
A	Corresponds to a correction in an earlier release	
B	Addition of feature	
C	Functional modification of feature	
D	Editorial modification	

Release:

Phase 2	
Release 96	
Release 97	
Release 98	
Release 99	X
Release 00	

Reason for change: Value ranges added for some UE information elements.
Change name on IE type “UTRAN DRX cycle length” to “DRX cycle length coefficient”

Clauses affected: 8.1.2.3, 8.3.1.5, 8.5.7.3.6 , 8.5.7.3.7, 10.1, 10.2.3

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:


help.doc

<---------- double-click here for help and instructions on how to create a CR

8.1.2.3 Reception of an PAGING TYPE 1 message by the UE

The UE shall in idle mode, CELL_PCH state and URA_PCH state receive the paging information for all its monitored paging occasions. For an UE in idle mode, the paging occasions are specified in TS 25.304. For an UE in CELL_PCH state and URA_PCH state the paging occasions ~~occasions occasions~~ depend on the IE "UTRAN DRX Cycle length coefficient" and the IE "DRX indicator", as specified in subclause 8.5.7.3.6 and 8.5.3.7 respectively.

8.3.1.5 Reception of the CELL UPDATE CONFIRM message by the UE

Upon receiving the CELL UPDATE CONFIRM message, the UE shall stop timer T302.

The UE shall act upon all received information elements as specified in 8.5.7, unless specified otherwise in the following.

If the CELL UPDATE CONFIRM message includes the IE "CN domain identity" and the IE "NAS system information", the UE shall forward the content of the IE "NAS system information" to the non-access stratum entity of the UE identified by the IE "CN domain identity".

If the CELL UPDATE CONFIRM message includes the IE "URA-Id" the UE shall store this URA identity.

If the CELL UPDATE CONFIRM message does not include IE "new C-RNTI", IE "new U-RNTI", IE "PRACH info" nor IE "Secondary CCPCH info", no RRC response message is sent to the UTRAN.

If the CELL UPDATE CONFIRM message includes the IE "newC-RNTI" and optionally the IE "new U-RNTI" but does not include IE "PRACH info" or IE "Secondary CCPCH info", the UE shall update its identities and transmit an RNTI REALLOCATION COMPLETE message on the uplink DCCH using the PRACH indicated in the broadcasted system information.

If the CELL UPDATE CONFIRM message includes the IE "PRACH info" and/or the IE "Secondary CCPCH info", the UE shall

- Perform the actions stated in subclauses 8.5.7.6.2 and 8.5.7.6.3
- update its identities if the CELL UPDATE CONFIRM message includes the IE new C-RNTI" and optionally the IE "newU-RNTI"
- transmit a PHYSICAL CHANNEL RECONFIGURATION COMPLETE message on the uplink DCCH using the PRACH indicated in CELL UPDATE CONFIRM message

The UE shall enter a state according to subclause 8.5.8 applied on the CELL UPDATE CONFIRM message, unless specified otherwise below.

If the IE "Cell update cause" in CELL UPDATE message was set to "UL data transmission" or "paging response", the UE shall remain in CELL_FACH state.

If the IE "Cell update cause" in CELL UPDATE message was set to "periodic cell update" or "cell reselection", the UE shall return to the state it was in before initiating the cell update procedure.

If the CELL UPDATE CONFIRM message includes the IE "DRX cycle length coefficient", the UE shall update DRX cycle length.

8.5.7.3.6 UTRAN DRX Cycle length coefficient

~~The UE may use Discontinuous Reception (DRX) in Cell_PCH or URA_PCH state in order to reduce power consumption. When DRX is used the UE needs only to monitor at one PICH Monitoring Occasion within one Paging Occasion per DRX cycle. The UE shall determine its paging occasions in the same way as for Idle Mode, see TS 25.304 for further details and definitions. If the IE "UTRAN DRX cycle length is included, the UE shallstore that value as the current UTRAN DRX Cycle length~~

If the IE "UTRAN DRX cycle length coefficient" is present, the UE shall use it to calculate the DRX cycle length, in connected mode according to the following:

Set k to the value of the IE "UTRAN DRX cycle length coefficient".

Store the result of 2^k *PBP, where PBP is the Paging Block Periodicity, as the DRX cycle length for connected mode.

The UE shall determine its connected mode paging occasions and PICH monitoring occasions in the same way as for idle mode, according to TS 25.304, based on the stored DRX cycle length for connected mode, when using Discontinuous Reception (DRX) in Cell_PCH and URA_PCH state.

8.5.7.3.7 DRX Indicator

If the IE "DRX Indicator" is included and set to 'DRX with cell updating', the UE shalluse the current UTRAN DRX Cycle length coefficient as DRX cycle length coefficient in the formulas for calculating Paging Occasion and PICH Monitoring Occasion.

If the IE "DRX Indicator" is included and is set to 'no DRX' the UE shall stop using DRX.

10.1.1.5 CELL UPDATE CONFIRM

This message confirms the cell update procedure and can be used to reallocate new RNTI information for the UE valid in the new cell.
RLC-SAP: UM
Logical channel: DCCH
Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
New U-RNTI	O			
New C-RNTI	O			
RLC re-configuration indicator	C-AM_RLC_recon			
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.1.12 URA UPDATE CONFIRM

This message confirms the URA update procedure and can be used to reallocate new RNTI information for the UE valid after the URA update.
RLC-SAP: UM
Logical channel: CCCH or DCCH
Direction: UTRAN→UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	C-CCCH			
New U-RNTI	O			
New C-RNTI	O			
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.4.7 RRC CONNECTION SETUP

This message is used by the network to accept the establishment of an RRC connection for an UE, including assignment of signalling link information, transport channel information and optionally physical channel information.
RLC-SAP: UM
Logical channel: CCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
U-RNTI	M			
C-RNTI	O			Only if assigned to a common transport channel
Activation time	O			
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.5.1 PHYSICAL CHANNEL RECONFIGURATION

This message is used by UTRAN to assign, replace or release a set of physical channels used by a UE.
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.5.4 RADIO BEARER RECONFIGURATION

This message is sent from UTRAN to reconfigure parameters related to a change of QoS. This procedure can also change the multiplexing of MAC, reconfigure transport channels and physical channels.

RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH			
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.5.7 RADIO BEARER RELEASE

<Functional description of this message to be included here>
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.5.10 RADIO BEARER SETUP

<Functional description of this message to be included here>
RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
CN information elements				
NAS binding info	M			
CN domain identity				
UE Information elements				
Activation time	O			
New C-RNTI	C – RACH/FACH		C-RNTI	
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.1.5.13 TRANSPORT CHANNEL RECONFIGURATION

This message is used by UTRAN to configure the transport channel of a UE. This also includes a possible reconfiguration of physical channels. The message can also be used to assign a TFC subset and reconfigure physical channel.

RLC-SAP: AM or UM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	Range	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FACH		C-RNTI	
UTRAN DRX cycle length coefficient	O		DRX cycle length coefficient	

10.2.3.9 Release cause

Cause for release of RRC connection.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Release cause	M		Enumerated (normal event, unspecified, pre-emptive release, congestion, re-establishment reject)	

10.2.3.10 Rejection cause

Cause for rejection of RRC connection establishment request.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Rejection cause	M		Enumerated(congestion, unspecified)	

10.2.3.20 URA update cause

Indicates the cause for s URA update. ~~Examples of causes are change of URA and periodic URA update.~~

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
URA update cause	M		Enumerated(change of URA, periodic URA update, re-entered service area)	

10.2.3.22 Inter-system handover failure cause

The purpose of this IE is to provide a reason for the failure of the Inter-system handover.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Inter-system handover failure cause	M		Enumerated(unspecified)	

10.2.3.27 UE Timers and Counters in idle mode

This information element indicates timers and maximum values of each counter used in UE in idle mode.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
T300	M		Integer(1...8)	Value in seconds
N300	M		Integer(1..8)	
~~T307~~	~~M~~			
~~T302~~	~~M~~			
~~T303~~	~~M~~			
~~N303~~	~~M~~			
~~N303~~	~~M~~			

10.2.3.x UE Timers and Counters in connected mode

This information element indicates timers and maximum values of each counter used in UE in connected mode.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
T301	M		Integer(1...8)	Value in seconds
N301	M		Integer(1..8)	
T302	M		Integer(1...8)	Value in seconds
N302	M		Integer(1..8)	
T303	M		Integer(1...8)	Value in seconds
N303	M		Integer(1..8)	
T304	M		Enumerated(200, 400...2000)	Value in milliseconds
N304	M		Integer(1..8)	
T307	M		Enumerated(5, 10..50)	Value in seconds
T308	M		Integer(40, 80...300)	Value in milliseconds
T309	M		Integer(1...8)	Value in seconds

10.2.3.30 Failure cause

Cause for failure to perform the requested procedure.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Failure cause	M		Enumerated (Configuration unacceptable, physical channel failure, incompatible simultaneous reconfiguration)	

10.2.3.31 ~~UTRAN~~ DRX cycle length coefficient

~~Indicates the time interval between monitoring~~A coefficient in the formula to count the paging occasions to be used by a specific UE (specified in 25.304) ~~in UTRAN Connected mode~~.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
DRX cycle length coefficient	M		Integer(2...12)	Refers to 'k' in the formula as specified in 25.304, Discontinuous reception

10.2.3.32 DRX Indicator

Indicates to a UE if DRX shall be used with Cell updating or URA updating or if no DRX at all shall be used.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
DRX indicator	M		Enumerated(no DRX, DRX with cell updating, DRX with URA updating)	

10.2.3.33 Ciphering hyper frame number

This hyper frame number (HFN) is used to initialise the ciphering algorithm.
For ciphering, HFN is the most significant bits of COUNT. When the COUNT is initialized: COUNT = HFN (the LSB part of COUNT is set to zero).

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Ciphering HFN	M		Integer (0...2^20-1)	Start value for uplink and downlink COUNT. For RBs using RLC transparent mode or RLC unacknowledged mode, zeros shall be added to form a HFN of 25 bits

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Document (R2-99i24)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

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25.331	CR	078	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*

(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** 26 Nov 1999

Subject: Other information elements

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

In this CR some smaller corrections and additions are proposed for chapter 10.2.8 (Other information elements).

- The type and value range for the parameter "BCCH Modification time" is added.
- Range bound explanations are added for the IEs "SIB data" and "SI Padding"
- Value ranges for the IEs "Segment index" and "SEG_COUNT" are changed from 5 bits to 4 bits.
- The transmission time interval for BCH has been set to 20 ms. This will affect the value range for the parameters SIB_POS and SIB_OFF, i.e only even SFN values can be used for the scheduling of system information blocks.
- The value range for the parameter SIB_REP is changed to support higher repetition rates of system information blocks. The maximum repetition rate with the new proposal is 40 ms.

Clauses affected: 10.2.8

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

10.2.8 Other Information elements

10.2.8.1 BCCH modification info

Indicates modification of the System Information on BCCH.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
MIB Value tag	M		Value tag	
BCCH Modification time	O		Integer (0, 2, 4, .. 4094)	All even SFN values are allowed.

10.2.8.2 Inter-system message

This Information Element contains one or several messages that are structured and coded according to the specification used for the system type indicated by the first parameter.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
System type	M		Enumerated (GSM,1..15)	
Message(s)	M	1..<maxInterSysMessages>	Bitstring (1..512)	Formatted and coded according to specification for the indicated system type.

Range Bound	Explanation
MaxInterSysMessages(=4)	Maximum number of Inter System Messages to send

10.2.8.3 Segment index

Each system information segment has an individual segment index.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Segment index	M		Integer (0..15~~31~~)	Segments of a system information block are numbered starting with 0 for the first part.

10.2.8.4 SIB data

Contains the result of the IE 'SIB Content' after segmentation.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
SIB data	M		Bit string (~~size~~ (1..MaxLength~~)~~)	

~~It is an acceptable constraint that the 'SIB data' fills always the transport block when appearing as the last IE in a transport block.~~

Range Bound	Explanation
MaxLength	Maximum length of a BCH- or FACH transport block used for broadcast of system information.

10.2.8.5 SI Padding

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Padding	M		Bit string (~~size~~ (1..MaxLength~~)~~)	

All the bits of the 'SI Padding' IE shall be set to a fixed value in emission. However, it is not an error for the receiver to receive any other value for those bits.

Range Bound	Explanation
MaxLength	Maximum length of a BCH- or FACH transport block used for broadcast of system information.

10.2.8.6 SIB type

The SIB type identifies a specific system information block.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
SIB type	M		Enumerated	

The list of value to encode are :

Master information block,

System Information Type 1,

System Information Type 2,

System Information Type 3,

System Information Type 4,

System Information Type 5,

System Information Type 6,

System Information Type 7

System Information Type 8,

System Information Type 9,

System Information Type 10,

System Information Type 11,

System Information Type 12

10.2.8.7 Value tag

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Value tag	M		Enumerated (1..256)	

10.2.8.8 Expiration time

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Expiration time	M		Integer (0..31)	The time is expressed in seconds. Expiration time of zero means the UE has to re-read the information upon each usage occasion.

10.2.8.9 Scheduling information

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
SIB type	M			
Value tag	C - Blocktype			The value of the 'value tag' IE in the 'scheduling information' IE indicates the value of the 'value tag' IE of the next occurrence of the SIB of SIB type the value of the 'SIB type' IE within the area scope of that SIB.
Scheduling	O			
> SEG_COUNT	O		SEG_COUNT	
> SIB_REP	M		~~Integer~~Enumerated (4, 8, 16, 32, 64, 128, 256, 512, 1024,~~..~~ 2048)	Repetition period for the SIB in frames
> SIB_POS	M		~~Integer~~ Enumerated(0, 2, 4, 6, …Rep-~~2~~1)	Position of the first segment
> SIB_POS offset info	O			
> > SIB_OFF	M	Segcount-1	~~Integer~~ Enumerated(~~1~~2, 4, 6..32)	Offset of subsequent segments

Condition	Explanation
Blocktype	The presence of this IE depends on the value of the preceding SIB type. This IE is mandatory if the specification of the SIB of that SIB type includes as first IE a Value tag IE.

Option	Default value
SIB_POS offset info	If the SIB_POS offset info is not present, the receiver shall understand that all segments are consecutive, i.e., that the SIB_OFF would have been 0, 1, 2, …
SEG_COUNT	If not present, the number of segments is one.
Scheduling	If not present, the SIB is not sent in the area scope.

Range Bound	Explanation
Segcount	The value of the SEG_COUNT IE
Rep	The value of the SIB_REP IE

10.2.8.10 SEG COUNT

SEG_COUNT	M		Integer (1..16~~32~~)	Number of segments in the system information block

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Document (R2-99i47)
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

25.331	CR	080	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*

(U)SIM		ME	X	UTRAN / Radio	X	Core Network	

Source: TSG-RAN WG2 **Date:** 29 Nov 99

Subject: Contents of measurement control message

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: RAN WG2#8 received a liaison (r2-99d86) from RAN WG1 regarding the the contents of the measurement control messages. The liaison gave WG1's assumption about the target cell information that is sent to the UE. This CR clarifies the IE 'reference time difference to cell' in order to bring it into line with WG1's assumptions.

Clauses affected:

Other specs affected:

Other 3G core specifications		→	List of CRs:
Other GSM core specifications		→	List of CRs:
MS test specifications		→	List of CRs:
BSS test specifications		→	List of CRs:
O&M specifications		→	List of CRs:

Other comments:

<--------- double-click here for help and instructions on how to create a CR.

10.2.7.4 Reference time difference to cell

The reference time difference to cell indicates the time difference between the primary CCPCH of the current cell and the primary CCPCH of a neighbouring cell. It is notified to UE by System Information or Measurement Control message.

In case of macro-diversity the reference is the primary CCPCH of one the cells used in the active set.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *accuracy*				
40 chips				
Reference time difference	M		Enumerated(0..40..38400)	
256 chips				
Reference time difference	M		Enumerated(0..256..38400)	
2560 chips				
Reference time difference	M		Enumerated(0..2560..3840 0)	

Editors note: Exactly how the reference cell is pointed out in this case in the messages is FFS.

10.2.7.5 Measured time difference to UTRA cell

For FDD: The measured time difference to cell indicates the time difference which is measured by UE between CFN in the UE and the SFN of the target neighbouring cell. It is notified to SRNC by Measurement Report message or Measurement Information Element in other RRC messages.

For TDD: This is the relative time difference in the frame timing between the serving and the target cell measured at the UE.

10.2.7.6 Measured time difference to GSM cell

(Note: Only the section is made.)

10.2.7.7 Measurement reporting mode

Contains the type of Measurement Report transfer mode and the indication of periodical/event trigger.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Measurement Report Transfer Mode	M		enumerated (Acknowledged / Unacknowledged)	
Periodical Reporting / Event Trigger Reporting Mode	M		enumerated (Periodical reporting / Event trigger)	

10.2.7.8 Intra-frequency cell info

Contains the measurement object information for an intra-frequency measurement.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Primary CCPCH info	M			
Primary CCPCH DL TX power	O			
UL load	O			FFS
SFN Measurement Indicator	M			
Reference time difference to cell	O			
DL CCTrCH info	O			List of TFCS ID's to measure
DL Timeslot info	O			List of timeslots to measure

10.2.7.9 Inter-frequency cell info

Contains the measurement object information for an inter-frequency measurement.

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Frequency info	M			
Primary CCPCH info	M			
Primary CCPCH DL TX power	O			FFS
UL load	O			FFS
Reference time difference to cell	O			~~FFS~~

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***Document* (R2-99i48)**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.331	CR	081	Current Version:	Intermediate

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: TSG-RAN#6	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑	for information		non-strategic		

Form: CR cover sheet, version 2 for 3GPP and SMG *The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc*

Proposed change affects: *(at least one should be marked with an X)*
(U)SIM [ ] ME [X] UTRAN / Radio [X] Core Network [ ]

Source: TSG-RAN WG2 **Date:** 29 Nov 99

Subject: RRC Information Elements to support Block STTD transmission diversity in TDD

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X
A	Corresponds to a correction in an earlier release	
B	Addition of feature	
C	Functional modification of feature	
D	Editorial modification	

Release:

Phase 2	
Release 96	
Release 97	
Release 98	
Release 99	X
Release 00	

Reason for change: RAN WG1 have agreed that Block STTD open loop transmission diversity may be applied to the PCCPCH in TDD. The use of Block STTD open transmission diversity should be indicated in system information this CR proposes to add a new IE 'Block STTD indicator' information element into the PCCPCH info. This aligns WG1 and WG2 specifications. Furthermore, the use of the open loop transmission diversity indicators for PCCPCH in the RRC specification is aligned for FDD and TDD

Clauses affected:

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of CRs:

Other comments:

<--------- double-click here for help and instructions on how to create a CR.

10.2.6.4 Primary CCPCH info

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
CHOICE *mode*				
FDD				
STTD indicator	O			
TDD				
Timeslot	M			The PSCH timeslot (the value k)
Midamble type	O			Long or short midamble
Cell parameters ID	M			For the cell parameter table
Sync case	M			Case 1,2, or 3
Block STTD indicator	O			

10.2.6.x Block STTD indicator (TDD only)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
Block STTD indicator	M		Boolean	