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

Title: **Agreed CRs of category "D" (Editorial) to TS 25.331 v"Intermediate"**

Source: **TSG-RAN WG2**

Agenda item: **5.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Subject	Cat	Versio	Versio
R2-99k48	agreed	25.331	096	1	Editorial Modification of IEs in RRC	D	interm	3.1.0
R2-99k46	agreed	25.331	120	1	Selected RRC message transfer	D	interm	3.1.0

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 **096r1**   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
list expected approval meeting # here ↑		For information			non-strategic		use only)

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:**	Nov. 29. 1999

Subject:	Editorial Modification of IEs in RRC messages

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		Release 98	
D	Editorial modification	**X**	Release 99	**X**
			Release 00	

Reason for change:

(1) Used ">" to clarify the indentations based on section 9.1.1.2 of TR25.921.

(2) According to CR007r1, some of the SSDT related IEs are removed.

(3) According to CR027r1, IEs in CELL UPDATE CONFIRM message are modified.

(4) Order of the IEs are aligned and some editorial simple mistakes are corrected (no technical issue included).

(5) "Primary CCPCH" is changed to "Primary CPICH" for FDD. (For TDD, "Primary CCPCH" is used.)

(6) "Reconfigured TrCH information" with capability of TrCH addition is renamed to "Added or Reconfigured TrCH Information."

(7) "Deleted TrCH information" is added to explicitly describe that "TrCH identity" are multiplexed.

(8) The semantic description of TFC subset is changed to "For TFCS in Uplink" instead of "For DCH in uplink" since it is applicable to both DPCCH+DPDCH and PRACH.

(9) All the "Downlink DPCH compressed mode info" is moved to the "CHOICE mode - FDD" IE.

(10) In section 10.1.4.1 RRC CONNECTION RE-ESTABLISHEMENT message, "Downlink DPCH power control info" and "Downlink DPCH compressed mode info" are added.

(11) In section 10.1.4.1 RRC CONNECTION RE-ESTABLISHEMENT message, "RB multiplexing info" is changed to "RB mapping info".

(12) In section 10.1.4.7 RRC CONNECTION SETUP message, "RB Information" is added and range of the number of radio bearers to set is described as "3 to <MaxRBcount>".

(13) In section 10.1.4.7 RRC CONNECTION SETUP message, the range of the number of TrCHs to set is described as "1 to <MaxULTrCHcount>" and "1 to <MaxDLTrCHcount>" instead starting from "0". Semantics descriptions are removed.

(14) In section 10.1.5.4 RADIO BEARER RECONFIGURATION message, "RB information" is renamed to "RB information to reconfigure". The semantics description for this

parameter is removed.

(15) In section10.1.5.7 RADIO BEARER RELEASE message, "RB information to release" is added to explicitly describe that "RB identity" are multiplexed. "MaxRelRBcount" is renamed to "MAXRBcount".

(16) In section10.1.5.7 RADIO BEARER RELEASE message, "RB information to be affected" is added to explicitly describe that "RB identity" and "RB mapping info" are multiplexed.

(17) In section10.1.5.7 RADIO BEARER RELEASE message, "Gated Transmission Control","CPCH SET Info" and Uplink Timing Advance" are moved to the end of the message(aligned with other messages).

(18) In section10.1.5.10 RADIO BEARER SETUP message, "Information for new RBs" is renamed to "RB information to setup". "MaxNewRBcount" is renamed "MaxRBcount". "Information for other RBs affected by this message" is renamed to "RB information to be affected".

(19) In section10.1.5.10 RADIO BEARER SETUP message, "CPCH SET Info" is moved to the end of the message(aligned with other messages).

(20) In section10.1.5.13 TRANSPORT CH RECONFIGURATION message, "CPCH SET Info" is moved to the end of the message (aligned with other messages).

(21) In section10.1.6.4.7 System Information Block Type5, "FACH information" is changed to "FACH/PCH information" since it conditionally includes TFS of the PCH.

(22) In section10.1.6.4.7 System Information Block Type5, "Maximum allowed TX power" at the bottom is removed since there were 2 same IEs in a message.

(23) In section10.1.6.4.8 System Information Block Type6, "FACH information" is changed to "FACH/PCH information" since it conditionally includes TFS of the PCH.

(24) In section10.1.6.4.8 System Information Block Type6, "Maximum allowed TX power" at the bottom is removed since there were 2 same IEs in a message.

(25) In section10.1.7.6 SECURITY MODE CONTROL COMPLETE message, Semantics description for RB identity is removed since it is not aligned with the current assumption in RAN WG2.

(26) TFCS for SCCPCH is added to TrCH information element since it was missing.

Clauses affected: 10.1

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:

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~~Multi	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
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info	M			Note 1
>>TDD				
>>>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
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info	M			Note 1
>>TDD				
>>>Primary CCPCH info	M			Note 1
CHOICE *mode*				
>FDD				
>>SSDT indicator	O			
>>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~~**Multi 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 CPICH(in FDD mode) or CCPCH(in TDD mode) downlink scrambling code is always allocated with sufficient reuse distances, primary CPICH(in FDD mode) or CCPCH(in TDD mode) 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~~Multi	IE type and reference	Semantics description
Message Type	M			
~~Phy CH information elements~~				
~~SSDT indicator~~	~~O~~			

10.1.1.3 ACTIVE SET UPDATE FAILURE (FDD only)

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

10.1.1.4 CELL UPDATE

This message is used by the UE to initiate a cell update procedure.
RLC-SAP: TM
Logical channel: CCCH
Direction: UE→UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	M			
Cell update cause	M			
AM_RLC error indication	O			Indicates AM_RLC unrecoverable error occurred on c-plane in the UE
Measurement information elements				
Measurement identity number				Intra-frequency measurement related report
Measured results				

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~~Multi	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				
Maximum allowed ULTX power	O			
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 CPICH info	O			
>>TDD				
>>>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~~**Multi** 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~~Multi	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			
Uplink radio resources				
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)
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info	M			
>>TDD				
>>>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~~**Multi 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~~Multi	IE type and reference	Semantics description
Message Type	M			
~~Phy CH information elements~~				
~~CHOICE *mode*~~				
~~TDD~~				
~~SSDT indicator~~	~~O~~			

10.1.1.8 HANDOVER FAILURE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

10.1.1.9 INTER-SYSTEM HANDOVER COMMAND

This message is used for handover from UMTS to another system e.g. GSM. One or several messages from the other system can be included in the Inter-System message information element in this message. These messages are structured and coded according to that systems specification.
RLC-SAP: AM
Logical channel: DCCH
Direction: UTRAN→UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Activation time	O			
Other information Elements				
Inter-System message	M			

10.1.1.10 INTER-SYSTEM HANDOVER FAILURE

This message is sent on the RRC connection used before the Inter-System Handover was executed. The message indicates that the UE has failed to seize the new channel in the other system.
RLC-SAP: AM
Logical channel: DCCH

Direction: UE→UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Inter-System handover failure cause	O			FFS
Other Information Elements				
Inter-System message	O			

10.1.1.11 URA UPDATE

This message is used by the UE to initiate a URA update procedure.
RLC-SAP: TM
Logical channel: CCCH
Direction: UE→UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	M			
URA update cause	M			

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~~Multi	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 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)

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

Condition	**Explanation**
CCCH	This IE is only sent when CCCH is used

[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.]

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~~Multi	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 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)

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

[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.]

10.1.1.14 RNTI REALLOCATION COMPLETE

This message is used to confirm the new RNTI information for the UE.
RLC-SAP: AMt.b.d.
Logical channel: DCCH
Direction: UE→UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			

10.1.2 Measurement Messages

10.1.2.1 MEASUREMENT CONTROL

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
Measurement Information elements				
Measurement Identity Number	M			
Measurement Command	M			
Measurement Type	O			
Measurement Reporting Mode	O			
CHOICE Measurement				
>Intra-frequency				
>>Intra-frequency cell info				Measurement object
>>Intra-frequency measurement quantity	C event trigger			
>>Intra-frequency measurement reporting quantity	O			Note 1
>>CHOICE report criteria				
>>>Intra-frequency measurement reporting criteria				
>>>Periodical reporting				
>Inter-frequency				
>>Inter-frequency cell info				Measurement object
>>Inter-frequency measurement quantity	C event trigger			
>>Inter-frequency measurement reporting quantity	O			Note 1
>>Inter-frequency set Update				
>>CHOICE report criteria				
>>>Intra-frequency measurement reporting criteria				
>>>Inter-frequency measurement reporting criteria				
>>>Periodical reporting				
>Inter-system				
>>Inter-system cell info				Measurement object
>>Inter-system measurement quantity	C event trigger			
>>Inter-system measurement reporting quantity	O			Note 1
>>CHOICE report criteria				
>>>Inter-system measurement reporting criteria				
>>>Periodical reporting				
>Traffic Volume				
>>Traffic volume measurement Object				
>>Traffic volume measurement quantity	C event trigger			
>>Traffic volume measurement reporting quantity	O			Note 1
>>CHOICE report criteria				
>>>Traffic volume measurement reporting criteria				
>>>Periodical reporting				
>Quality				
>>Quality measurement Object				
>>Quality measurement quantity	C event trigger			
>>Quality measurement reporting quantity	O			Note 1
>>CHOICE report criteria				
>>>Quality measurement reporting criteria				
>>>Periodical reporting				
>UE internal				

Information Element	Presence			
>>UE internal measurement quantity	C event trigger			
>>UE internal measurement reporting quantity	O			Note 1
>>**CHOICE report criteria**				
>>>UE internal measurement reporting criteria				
>>>Periodical reporting				

Condition	Explanation
Event trigger	This element is only included in the message which is sent in event trigger reporting mode.

CHOICE *Measurement*	Condition under which the given *Measurement* is chosen
Intra-frequency	if measurement type=Intra-frequency measurement
Inter-frequency	if measurement type=Inter-frequency measurement
Inter-system	if measurement type=Intra-system measurement
Traffic volume	if measurement type=traffic volume measurement
Quality	if measurement type=Quality measurement
UE internal	if measurement type=UE internal measurement
CHOICE *reporting criteria*	**Condition under which the given *reporting criteria* is chosen**
******* measurement reporting criteria	Chosen when event triggering is required
Periodical reporting	Chosen when periodical reporting is required

Note 1: It is FFS whether it is necessary to separate the reporting quantity for each type.

Note 2: The network may order the UE to report other measurements when UE internal measurements are reported

10.1.2.2 MEASUREMENT CONTROL FAILURE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

10.1.2.3 MEASUREMENT REPORT

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
Measurement Information Elements				
Measurement report information		1 to \<maxMeasRepCount>		Send Measurement Report information for each measurement report in the message (Note 1)
>Measurement identity number	M			
>Measured Results	C MR required			
>**CHOICE event result**	C event trigger			Note 1,2
>>Intra-frequency measurement event results				
>>Inter-frequency measurement event results				
>>Inter-system measurement event results				
>>Traffic volume measurement event results				
>>Quality measurement event results				

Condition	Explanation
Event trigger	This element is only included in the message which is sent in event trigger reporting mode.
MR required	This information element is included by the sender only if indicated optionally by Reporting Quantity in Measurement Control

~~Range~~Multi **Bound**	Explanation
MaxMeasRepCount	Maximum number of Measurement reports in a message

CHOICE *event result*	Condition under which the given *event result* is chosen
Intra-frequency measurement event results	
Inter-frequency measurement event results	
Inter-system measurement event results	
Traffic volume measurement event results	
Quality measurement event results	

Note 1: Whether it is possible to send multiple measurement results that are identified by different measurement identity numbers in the same Measurement Report is FFS. An alternative solution is to allowt only one measurement identity number per Measurement Report and concatenate different Measurement Reports in the RLC layer instead.

Note 2: If it is possible to send many measurement results that are identified by different events in the same Measurement Report is FFS.

10.1.3 Paging Messages

10.1.3.1 PAGING TYPE 1

This message is used to send information on the paging channel. One or several UEs, in idle or connected mode,can be paged in one message, which also can contain other information.

RLC-SAP: TM
Logical channel: PCCH
Direction: UTRAN → UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Paging record		0 to <Page Count>		
Other information elements				
BCCH modification info	O			

~~Range~~Multi **Bound**	**Explanation**
Page Count	Number of UE's paged in the Paging Type 1 message

10.1.3.2 PAGING TYPE 2

This message is used to page an UE in connected mode, when using the DCCH for CN originated paging.

RLC-SAP: AM
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
CN Information elements				
CN domain identity	M			
Paging Record Type Identifier	M		Enumerated (IMSI, TMSI/ P-TMSI)	
UE Information elements				
Paging cause	M			

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~~Multi	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 mapping info	M			
Transport ChannelTrCH Information Elements				
TFCS	O			For uplink DPCH TFCSs
TFCS	O			For downlink DPCH TFCSs
TFCS	O			For SCCPCH TFCS
CHOICE mode				
>TDD				
>>TFCS Identity	O			Uplink DPCH TFCS
>>TFCS Identity	O			Downlink DPCH TFCS
TFC subset	O			For DPCH TFCSs in uplink
Uplink transport channels				
Deleted TrCH informationTransport channel identity		0 to <MaxDelTrCH>		
>Transport channel identity	M			
Added or 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>		
>Transport channel identity	M			
Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
>Transport channel identity	M			
>TFS	M			
PhyCH information elements				
Frequency info	O			
Uplink radio resources				
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 (for RACH)				
Downlink radio resources information				

Downlink DPCH power control info	O			
Downlink information per radio link		0 to <Max Rlcount>		Send downlink information for each radio link to be set-up
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>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			
>>Downlink DPCH compressed mode info	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 (for RACH)	

~~Range~~Multi 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

10.1.4.2 RRC CONNECTION RE-ESTABLISHMENT COMPLETE

<Functional description of this message to be included here>
RLC-SAP: AM
Logical channel: DCCH

Direction: UE → UTRAN

Information Element	Presence	~~Range~~Mul ti	IE type and reference	Semantics description
Message Type	M			

10.1.4.3 RRC CONNECTION RE-ESTABLISHMENT REQUEST

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

Information Element	Presence	~~Range~~Mul ti	IE type and reference	Semantics description
Message Type	M			
UE information elements				
U-RNTI	M			
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~~**Multi Bound**	**Explanation**
MeasRepCount	Number of measurement reports in the message

10.1.4.4 RRC CONNECTION RELEASE

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

Information Element	Presence	~~Range~~Mul ti	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Release cause	M			
Number of RRC Message Transmissions	M			

10.1.4.5 RRC CONNECTION RELEASE COMPLETE

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

Direction: UE → UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			

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~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
Establishment cause	M			
Initial UE capability	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~~Multi 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~~Multi	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 information		3 to <MaxRBcount>		
>RB identity	M			Indicates the signalling link
>Signalling link type	M			
>RB mapping info	M			For the signalling link
TrCH information elements				
TFCS	O			For Uplink DPCH TFCS
TFCS	O			For Downlink DPCH TFCS
TFCS	O			For SCCPCH TFCS
CHOICE *mode*				
>TDD				
>>TFCS Identity	O			Uplink DPCH TFCS
>>TFCS Identity	O			Downlink DPCH TFCS
TFC subset	O			For DPCH TFCS in uplink
Uplink transport channels				
Uplink transport channel information		~~0~~1 to <MaxULTrCHCount>		~~Send transport channel information for each new Uplink transport channel~~
>Transport channel identity	M			
>TFS	M			
Downlink transport channels				
Downlink transport channel information		~~0~~1 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			
Uplink radio resources				
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 resources ~~information~~				
Downlink DPCH power control info	O			
~~CHOICE *mode*~~				
~~FDD~~				
~~Downlink DPCH compressed mode info~~	~~O~~			
Downlink information per radio		0 to <Max		Send downlink information for

link		RLcount>		each radio link to be set-up
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>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			
>>Downlink DPCH compressed mode info	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.

RangeMulti Bound	Explanation
MaxRBcount	Maximum number of RBs to setup
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 (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.

10.1.4.8 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~~Multi	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~~

10.1.4.9 RRC CONNECTION REJECT

This message is transmitted by the network when the requested RRC connection cannot be accepted.
RLC-SAP: UM
Logical channel: CCCH
Direction: UTRAN → UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Initial UE identity	M			
Rejection cause	M			
Wait time	O			

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~~Multi	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~~PhyCH **information elements**				
Frequency info	O			
Uplink radio resources				
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 resources ~~information~~				
Downlink DPCH power control info	O			
~~CHOICE *mode*~~				
~~FDD~~				
~~Downlink DPCH compressed mode info~~	~~O~~			
Downlink information per radio link		0 to <Max RLcount>		Send downlink information for each radio link
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>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			
>>Downlink DPCH compressed mode info	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~~Multi 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~~Multi	IE type and reference	Semantics description
Message Type	M			
~~Phy CH information elements~~				
~~CHOICE *mode*~~				
~~FDD~~				
~~SSDT indicator~~	~~O~~			~~Necessity is FFS~~

10.1.5.3 PHYSICAL CHANNEL RECONFIGURATION FAILURE

<Functional description of this message to be included here>

RLC-SAP: AM

Logical channel: DCCH

Direction: UE→UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

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~~Multi ti	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
Activation time	O			
New C-RNTI	C - RACH/FA CH			
UTRAN DRX cycle length	O			
DRX Indicator	O			
RB information elements				
RB information to reconfigure		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~~TrCH **Information Elements**				
TFCS	O			for uplink DPCH TFCS
TFCS	O			for downlink DPCH TFCS
TFCS	O			For SCCPCH TFCS
CHOICE *mode*				
>TDD				
>>TFCS Identity	O			Uplink DPCH TFCS
>>TFCS Identity	O			Downlink DPCH TFCS
TFC subset	O			for DPCH TFCS~~s~~ in uplink
Uplink transport channels				
Deleted TrCH information~~Transport channel identity~~		0 to <MaxDelTrCH>		
>Transport channel identity	M			
Added or 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				
Deleted TrCH information~~Transport channel identity~~		0 to <MaxDelTrCH>		
>Transport channel identity	M			
Added or Reconfigured TrCH information		0 to <MaxReconAddTrCH>		
>Transport channel identity	M			
>TFS	M			
~~Physical Channel~~PhyCH **information elements**				
Frequency info	O			

Uplink radio resources				
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 resources information				
Downlink DPCH power control info	O			
Downlink DPCH compressed mode info	O			
Downlink information per radio link		0 to <Max RLcount>		Send downlink information for each radio link
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>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			
>>Downlink DPCH compressed mode info	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~~Multi 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~~Multi	IE type and reference	Semantics description
Message Type	M			
~~Phy CH information elements~~				
~~CHOICE mode~~				
~~FDD~~				
~~SSDT indicator~~	~~O~~			~~FFS~~

10.1.5.6 RADIO BEARER RECONFIGURATION FAILURE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

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~~Multi	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~~RB information to release		1 to <Max~~Rel~~RBcount>		
>RB identity	M			
RB information to be affected~~dentity~~		0 to <MaxOtherRBcount>		
>RB identity	O			
>RB mapping info	O			
~~Transport Channel~~TrCH **Information Elements**				
TFCS	O			for uplink DPCH TFCS
TFCS	O			for downlink DPCH TFCS
TFCS	O			For SCCPCH TFCS
CHOICE *mode*				
>TDD				
>>TFCS Identity	O			Uplink DPCH TFCS
>>TFCS Identity	O			Downlink DPCH TFCS
TFC subset	O			for ~~DCHs~~ DPCH TFCS in uplink
Uplink transport channels				
Deleted TrCH information~~Transport channel identity~~		0 to <MaxDelTrCH>		
>Transport channel identity	M			
Added or Reconfigured TrCH information		0 to <MaxReconAdd~~FFS~~TrCH>		
>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				
Deleted TrCH information~~Transport channel identity~~		0 to <MaxDelTrCH>		
>Transport channel identity	M			
Added or Reconfigured TrCH information		0 to <MaxReconAddTrCH>		Editor : this limit should probably also be MaxReconAddFFSTrCH
>Transport channel identity	M			
>TFS	M			
~~Physical Channel~~PhyCH **information elements**				

Frequency info	O			
Uplink radio resources				
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				
>PRACH info (for RACH)				
>CHOICE *mode*				
>>FDD				
>>>PRACH info (for FAUSCH)				
~~PRACH info (for RACH)~~				
Downlink radio resources ~~information~~				
Downlink information per radio link		0 to <Max RLcount>		Send downlink information for each radio link to be set-up
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>Primary CCPCH info				
>Downlink DPCH info				
>Secondary CCPCH info				
CHOICE *mode*				
>FDD				
>>SSDT indicator	O			
>>CPCH SET Info	O			UL/DL radio resource for CPCH control (Note2)
>>Gated Transmission Control info	O, FFS			Note 3
>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~~**Multi Bound**	**Explanation**
MaxRLcount	Maximum number of radio links
Max~~Del~~RBcount	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
MaxReconAdd~~FFS~~TrCH	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.

10.1.5.8 RADIO BEARER RELEASE COMPLETE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			

10.1.5.9 RADIO BEARER RELEASE FAILURE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

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~~Multi	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~~RB information to setup		1 to <Max~~New~~ RBcount>		
>RB identity	M			
>RLC info	M			
>RB mapping info	M			
~~Information for other RB's affected by this message~~RB information to be affected		0 to <MaxOther RBcount>		
—>RB identity	M			
—>RB mapping info	M			
~~Transport Channel~~TrCH Information Elements				
TFCS	O			for uplink DPCH TFCS
TFCS	O			for downlink DPCH TFCS
TFCS	O			For SCCPCH TFCS
CHOICE *mode*				
>TDD				
>>TFCS Identity	O			Uplink DPCH TFCS
>>TFCS Identity	O			Downlink DPCH TFCS
TFC subset	O			for ~~DCHs~~ DPCH TFCS in uplink
Uplink transport channels				
Deleted TrCH information~~Transport channel identity~~		0 to <MaxDelTrCH>		~~editor should this be FFS also?~~
>Transport channel identity	M			
Added or 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				
Deleted TrCH information~~Transport channel identity~~		0 to <MaxDelTrCH>		~~FFS~~
>Transport channel identity	M			
Added or Reconfigured TrCH information		0 to <MaxReconAddTrCH		

		>		
>Transport channel identity	M			
>TFS	M			
Physical ChannelPhyCH information elements				
Frequency info	O			
Uplink radio resources				
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 resources information				
Downlink DPCH power control info	O			
CHOICE *mode*				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information per radio link		0 to <Max RLcount>		Send downlink information for each radio link
>CHOICE *mode*				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>Primary CCPCH info				
>Downlink DPCH info				
>Secondary CCPCH info				
CHOICE *mode*				
>FDD				
>>SSDT indicator	O			FFS
>>CPCH SET Info	O			
SSDT Cell ID	C ifSSDT			FFS
>>Gated Transmission Control info	O			FFS
>>Default DPCH Offset Value	O			
>>Downlink DPCH compressed mode info	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~~Multi 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
Max~~New~~RBcount	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~~Multi	IE type and reference	Semantics description
Message Type	M			
~~Phy CH information elements~~				
~~CHOICE mode~~				
~~FDD~~				
~~SSDT indicator~~	~~O~~			~~FFS~~

10.1.5.12 RADIO BEARER SETUP FAILURE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

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~~Multi	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~~TrCH **Information Elements**				
TFCS	O			for uplink DPCH TFCS
TFCS	O			for downlink DPCH TFCS
TFCS	O			For SCCPCH TFCS
CHOICE *mode*				
>TDD				
>>TFCS Identity	O			Uplink DPCH TFCS
>>TFCS Identity	O			Downlink DPCH TFCS
TFC subset	O			for ~~DCHs~~ DPCH TFCS 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~~PhyCH **information elements**				
Frequency info	O			
Uplink radio resources				
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				
>PRACH info (for RACH)				
>CHOICE *mode*				
>>FDD				
>>>PRACH info (for FAUSCH)				
~~PRACH info (for RACH)~~				
	~~O~~			
Downlink radio resources ~~information~~				

Downlink DPCH power control info	O			
CHOICE mode				
FDD				
Downlink DPCH compressed mode info	O			
Downlink information per radio link		0 to <Max RLcount>		Send downlink information for each radio link
>CHOICE mode				
>>FDD				
>>>Primary CPICH info				
>>TDD				
>>>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			
>>Downlink DPCH compressed mode info	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

RangeMulti 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~~Multi	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.

10.1.5.15 TRANSPORT CHANNEL RECONFIGURATION FAILURE

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
Failure cause	M			

10.1.5.16 TRANSPORT FORMAT COMBINATION CONTROL

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	C-notTM			
TrCH information elements				
Choice ch				
>TFC subset	~~M~~O			For DPCH TFCS in uplink~~For uplink TFCS~~

Condition	Explanation
NotTM	The message type is not included when transmitting the message on the transparent mode signalling DCCH

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

10.1.5.17 DOWNLINK OUTER LOOP CONTROL

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

Information Element	Presence	~~Range~~Mul ti	IE type and reference	Semantics description
Message Type	M			
PhyCH information elements				
Downlink Outer Loop Control	M			Indicates whether the UE is allowed or not to increase its Eb/No target value above its current value

10.1.5.18 PHYSICAL SHARED CHANNEL ALLOCATION (TDD only)

This message is used by UTRAN to assign physical resources to USCH/DSCH transport channels in TDD, for temporary usage by the UE.
RLC-SAP: TM or AM
Logical channel: SHCCH
Direction: UTRAN → UE

Information Element	Presence	~~Range~~Mul ti	IE type and reference	Semantics description
Message Type	M			
UE Information elements				
C-RNTI	M			
PUSCH allocation pending	O			
~~Transport Channel~~TrCH information elements				
TFCS identity	O			
~~Physical Channel~~PhyCH information elements				
PUSCH power control info	O			
Uplink timing advance info	O			
PUSCH info	O			
PDSCH info	O			

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.
Logical channel: SHCCH
Direction: UE → UTRAN

Information Element	Presence	~~Range~~Multi	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 <MeasRep Count>		Send Measurement information for each measurement report in the message
>Measurement identity number	M			Refers to system information
>Measured results	M			

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

10.1.6 System Information Messages

10.1.6.1 SYSTEM INFORMATION

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message type	C channel			
CHOICE				
> First SIB Segment			First SIB Segment	
> Subsequent SIB Segment			Subsequent SIB Segment	
> Parts				
>> Last SIB Segment	C number		Last SIB Segment	
>> Complete SIB	C number	0..indefinite	Complete SIB	

Condition	Explanation
Channel	The message type is mandatory on the FACH, and absent on the BCH
Number	If 'parts' is present, then a) There shall be 0 or 1 'Last SIB segment; c) 'Parts' shall not be empty.

10.1.6.2   First SIB Segment

This segment type is used to transfer the first segment of a segmented system information block.

RLC_SAP: TM

Logical channel: BCCH

Direction: UTRAN -> UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Segment Type	M			
Other information elements				
SIB type	M			
SEG_COUNT	M			
SIB data	M			

10.1.6.3   Subsequent SIB Segment

This segment type is used to transfer a subsequent segment of a segmented system information block.

RLC_SAP: TM

Logical channel: BCCH

Direction: UTRAN -> UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Segment type	M			
Other information elements				
SIB type	M			
Segment index	M			
SIB data	M			

10.1.6.4   Last SIB Segment

This segment type is used to transfer the last segment of a segmented system information block.

RLC_SAP: TM

Logical channel: BCCH

Direction: UTRAN -> UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Segment type	M			
Other information elements				
SIB type	M			
Segment index	M			
SIB data	M			

10.1.6.4   Complete SIB

This segment type is used to transfer a non-segmented system information block.

RLC_SAP: TM

Logical channel: BCCH

Direction: UTRAN -> UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Segment type	M			
Other information elements				
SIB type	M			
SIB content	M			

10.1.6.4 System Information Blocks

10.1.6.4.1 SIB Content

SIB Segments are the result of the segmentation of a 'SIB Content' IE. The SIB content IE is developed hereafter :

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
CHOICE SIB type	M			
> Master information block				
> System information block type 1				
> System information block type 2				
> System information block type 3				
> System information block type 4				
> System information block type 5				
> System information block type 6				
> System information block type 7				
> System information block type 8				
> System information block type 9				
> System information block type 10				
> System information block type 11				
> System information block type 12				
SI Padding	C filling			

Condition	Explanation
SIB Type	The common value of the 'SIB type' field in the segment(s).
filling	It is an acceptable constraint that, when the last segment of the SIB is the last IE of a System Information message, the padding is constrained to be such that it fills the transport block.

10.1.6.4.2 Master Information Block

Area scope: Cell

UE mode: Idle mode and connected mode

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		1 ..\<maxSysInfoBlockcount>		
>Scheduling information	M			
CN information elements				
CN Type	M			
PLMN Identity	M			

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.

~~Range~~**Multi Bound**	Explanation
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

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~~Multi	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~~**Multi Bound**	Explanation
MaxCNdomains	Maximum number of CN domains

10.1.6.4.4 System Information Block type 2

The system information block type 2 contains the URA identity and information for periodic cell and URA update. It also includes the UE timers and counters to be used in connected mode.

Area scope: PLMN

UE mode: connected mode

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Other information elements				
Value tag	M			
UTRAN mobility information elements				
URA identity		1 ..<maxURAcount>		
Information for periodic cell and URA update	M			
UE information				
UE Timers and counters	M			*Note: Only timers and counters used in connected mode*

~~Range~~Multi Bound	Explanation
MaxURAcount	Maximum number of URA's in a cell

10.1.6.4.5 System Information Block type 3

The system information block type 3 contains parameters for cell selection and re-selection. 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~~Multi	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		0 .. <maxSysInfoBlockcount>		
>Scheduling information	M			
UTRAN mobility information elements				
Cell identity	M			The necessity and usage of cell identity is FFS.
Cell selection and re-selection info	M			

~~Range~~Multi Bound	Explanation
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

10.1.6.4.6   System Information Block type 4

The system information block type 4 contains parameters for cell selection and re-selection 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~~Multi	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		0 .. <maxSysInfoBlockcount>		
>Scheduling information	M			
UTRAN mobility information elements				
Cell identity	M			The necessity and usage of cell identity is FFS.
Cell selection and re-selection info	M			

~~Range~~Multi Bound	Explanation
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

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~~Multi	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				
>>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 SCCPCH TFCS~~For FACHs and PCH~~
>FACH/PCH 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.

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~~Multi 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~~Multi	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 SCCPCH TFCS~~For FACHs and PCH~~
>FACH/PCH 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.

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~~Multi 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.

10.1.6.4.9 System Information Block type 7

The system information block type 7 contains the uplink access control parameters and the PRACH power control information to be used in the cell.

Area scope: cell

UE mode: idle mode (and connected mode)

Information Element	Presence	~~Range~~Multi	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 this system information block are valid.
UE information				
Uplink access control info	M			
PhyCH information elements				
PRACH information		1 .. <maxPRACHcount>		
>PRACH power control inform.	M			

~~Range~~Multi Bound	Explanation
MaxPRACHcount	Maximum number of PRACH's

10.1.6.4.10 System Information Block type 8

The system information block type 8 contains the uplink access control parameters and the PRACH power control information to be used in connected mode. The block is optional. When not sent, 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~~Multi	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				
Uplink access control info	O			
PhyCH information elements				
PRACH information		0 to <maxPRACHcount>		
>PRACH power control inform.	M			

~~Range~~Multi **Bound**	**Explanation**
MaxPRACHcount	Maximum number of PRACH's

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~~Multi	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			
CPCH set persistency value	M			

10.1.6.4.11 System Information Block type 10 (FDD)

The system information block type 10 contains information to be used by UEs having their DCH controlled by a DRAC procedure. The system information block is optional. That the SIB is not sent indicates that the DRAC procedures do not apply in this cell.

Area scope: cell

UE mode: connected mode

Information Element	Presence	~~Range~~Multi	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				
DRAC information		1 .. <maxDRACclasses>		DRAC information is sent for each class of terminal
>Transmission probability	M			
>Maximum bit rate	M			

~~Range~~Multi **Bound**	**Explanation**
MaxDRACclasses	Maximum number of UE classes which would require different DRAC parameters

10.1.6.4.12 System Information Block type 11

The system information block type 11 contains measurement control information to be used in idle mode. The values may also be used in connected mode if the corresponding IEs are not specified in System information block type 12. 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~~Multi	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		0 .. <maxSysInfoBlockcount>		
>Scheduling information	M			
Measurement information elements				
Measurment control information		1 .. <maxMeasurementTypecount>		
>Measurement type	M			
>CHOICE Measurement	~~C – Intrafreq~~			
>>**Intra-frequency**	C – Intrafreq			
>>>Intra-frequency cell info	M			
>>>Intra-frequency Measurement quantity	M			
>>>Intra-frequency reporting Quantity for RACH Reporting	M			
>>>Maximum number of Reported cells on RACH	M			
>>>Intra-frequency reporting criteria				
>>>Intra-frequency reporting Quantity	O			
>>**Inter-frequency**	C – Interfreq			
>>>Inter-frequency cell info	M			
>>>Inter-frequency Measurement quantity	M			
>>**Inter-system**	C – Intersys			
>>>Inter-system cell info	M			
>>>Inter-system measurement Quantity	M			

Condition	Explanation
Measurement	The choice shall be consistent (same name) with the value of the 'Measurement type' IE
Intersys	Measurement type = Inter system measurement
Interfreq	Measurement type = Inter frequency measurement
Intrafreq	Measurement type = Intra frequency measurement
Blocktype	The presence of this IE depends on the definition of the system information block type.

~~Range~~**Multi Bound**	Explanation
MaxMeasTypeCount	Maximum number of measurement types
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

10.1.6.4.14   System Information Block type 12

The system information block type 12 contains measurement control information to be used in connected mode.

Area scope: cell

UE mode: connected mode

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Other information elements				
Value tag	M			
References to other system information blocks		0 .. <maxSysInfoBlockcount>		
>SIB type	M			
>Value tag	C – Blocktype			
>Scheduling information	M			
Measurement information elements				
Measurment control information		1 .. <maxMeasurementTypecount>		
>Measurement Identity Number	M			
>Measurement Type	M			
>CHOICE Measurement				
>>**Intra-frequency**	C – Intrafreq			
>>>Intra-frequency cell info	O			
>>>Intra-frequency Measurement quantity	O			
>>>Intra-frequency Reporting quantity for RACH reporting	O			
>>>Maximum number of Reported cells on RACH	O			
>>>Intra-frequency reporting Quantity	O			
>>**Inter-frequency**	C - Interfreq			
>>>Inter-frequency cell Info	O			
>>>Inter-frequency Measurement quantity	O			
>>**Inter-system**	C - Intersys			
>>>Inter-system cell info	O			
>>>Inter-system measurement quantity	O			
>>**Traffic volume**				
>>>Traffic volume measurement objects	M			
>>>Traffic volume measurement quantity	M			
>>**UE Internal**				
>>>UE internal measurement quantity	M			

Condition	Explanation
Measurement	The choice shall be consistent (same name) with the value of the 'Measurement type' IE
Intersys	Measurement type = Inter system measurement
Interfreq	Measurement type = Inter frequency measurement
Intrafreq	Measurement type = Intra frequency measurement
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.

~~Range~~Multi Bound	Explanation
MaxMeasTypeCount	Maximum number of measurement types
MaxSysInfoBlockcount	Maximum number of references to other system information blocks.

Option	Default value
All optional elements	If not present, the value shall be assumed to be that indicated for in idle mode in SIB 11.

10.1.7 Other Messages

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~~Multi	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	M			
Other information elements				
Inter-system message	O			Includes inter-system classmark

10.1.7.2 UE CAPABILITY INFORMATION CONFIRM

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

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			

10.1.7.3 UE CAPABILITY ENQUIRY

The UE CAPABILITY ENQUIRY is used by the UTRAN to enquire inter-system classmarks from the UE.

RLC-SAP: t.b.d.
Logical channel: DCCH
Direction: UTRAN → UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
UE information elements				
System	M		Enumerated (GSM,..)	

10.1.7.4 DIRECT TRANSFER

<Functional description of this message to be included here>
RLC-SAP: AM
Logical channel: DCCH
Direction: both

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
CN information elements				
CN domain identity	M			
NAS message	M			
Measurement information elements				
Measured results	O			

10.1.7.5 SECURITY MODE CONTROL COMMAND

RLC-SAP: AM
Logical channel: DCCH
Direction: UTRAN to UE

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
CN Information elements				
CN domain identity	M			Indicates which cipher key is Applicable
UE information elements				
Ciphering mode info	O			Only present if ciphering shall be controlled

~~Range~~Multi Bound	Explanation
MaxReconRBs	For each radio bearer that is reconfigured

10.1.7.6 SECURITY MODE CONTROL COMPLETE

RLC-SAP: AM
Logical channel: DCCH
Direction: UE to UTRAN

Information Element	Presence	~~Range~~Multi	IE type and reference	Semantics description
Message Type	M			
RB Information elements				
Radio bearer identity		1 to <maxReconRBs>		~~Radio bearer identity 0 indicates the signalling link and is always present~~
UE information elements				
Downlink activation Time	O		Activation time	

~~Range~~Multi Bound	Explanation
MaxReconRBs	For each radio bearer that is reconfigured

Document **(R2-99k46)**

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 **120r1**   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*
list expected approval meeting # here ↑ | | for information | | | non-strategic | | *use only)*

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:** | Dec 03 1999

Subject: | Selected RRC message transfer syntax

Work item: |

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

Reason for change: | Introduction of PER as RRC message transfer syntax.
Special encoding is applied when compactness is critical.

Clauses affected: | 12

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: |

12 Message transfer syntax

Transfer syntax for RRC PDUs is derived from their abstract syntax definitions by use of ~~encoding rules~~Packed Encoding Rules, unaligned (X.691). If special encoding is used, it is indicated in the ASN.1 description. How it is used is defined in TR 25.921, clause 11.2.