Agenda Item   : 5
Source   : Rapporteur (NTT DoCoMo)
Title   : Status Report of E-mail discussion
Document for   : Approval

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1. Introduction

The following contributions are included in the ad-hoc discussion.

[1] TSGR#5(99)553 "Change Request to S2.31 to add FAUSCH parameters to RRC messages' parameters list ", source:Philips
[2] TSGR#5(99)595 "RRC Parameters for RLC", source: Ericsson
[3] TSGR#5(99)596 "CPCH parameter additions to 25.331, RRC Protocol Specification", source: GBT
[4] TSGR#5(99)609 "BCCH Measurement Control", source: Nokia
[5] TSGR#5(99)628 "RRC parameters for the support of transmission diversity", source: Motorola
[6] TSGR#5(99)643 "Identification of Parameters to Provide Full Flexibility of Channel Definition to Meet IMT2000 Requirements", source: Lucent
[7] TSGR#5(99)657 "Triggering of measurement events by active and monitored cells", source: Nokia
[8] TSGR#4(99)439 "RRC procedures and parameters for gated transmission of uplink/downlink DPCCH in control only substate ", source: Samsung.

2. Status

The statuses of the above contributions are as follows;

tdoc	Discussions	STATUS
[1]	Parameters for optional support feature for both UE and UTRAN. (UE capability vs. System Information)	FFS
	"FAUSCH usage" is added in the "UE capability information" and removed from "Initial UE capability". FAUSCH info is not included in the RRC Connection Setup message. (However, FAUSCH can be allocated for "DCCH only existing case" by using Physical CH Reconfiguration procedure.)	Agreed?
	FAUSCH info is included in the following messages; -Cell Update Confirm -RAB Setup -RAB Reconfiguration -RAB Release -Transport CH Reconfiguration -Physical CH Reconfiguration	Agreed
	Parameters for RRC Connection Re-establishment (Added with FFS)	FFS
	Necessity of FAUSCH info in the following messages; -Handover Command -URA Update Confirm	FFS
	Allocation of several different FAUSCHs to a single UE.	FFS
	Parameters for PRACH info (for FAUSCH)	Partly agreed
[2]	Detail parameters for RLC info.	Agreed
	Necessity of "Receiving window size"	FFS

[3]	CPCH Set Info is included in the following messages; -Cell Update Confirm -RRC Connection Re-establishment -RRC Connection Setup -RAB Setup -RAB Reconfiguration -RAB Release -Transport CH Reconfiguration -Physical CH Reconfiguration -System Information	Agreed
	CPCH Set Info, CPCH set persistency values and CPCH parameters are included in the System Information message	Agreed
	How to map UL and DL radio resource in the message	FFS
	CPCH Set ID is mapped into CPCH SET Info	Agreed
	Whether several CPCH Set Info with different QoS can be set in a cell	FFS
	Measurement parameters for CPCH	FFS
[4]	Measurement ID in System Information	Agreed
	How the measurement ID is used and how a "common" measurement becomes a "dedicated" measurement.	FFS
	Traffic Measurement of RACH.	FFS
[5]	Detail parameters for STTD mechanism.	Agreed
[6]	Frequency parameters within UMTS in "Frequency Info" are modified.	Agreed
	Necessity of the Duplex distance.	FFS
	Necessity of "Same/ different system" and "Identification of system"	FFS
[7]	Addition of "Triggering condition" for event 1a, 1b, 1e and 1f.	Agreed
[8]	Gated Transmission Info is included in the following messages; -RRC Connection Setup -RAB Setup -RAB Reconfiguration -RAB Release -Transport CH Reconfiguration	Agreed
	Activation time is removed from Gated transmission info. (Activation time is already included in the UE information Element).	Agreed

3. Proposal

3.Definitions, Symbols and abbreviations

3.2 Abbreviations

CCCH	Common Control Channel
CN	Core Network
CM	Call Management
CPCH	Common Packet CHannel
C-RNTI	CRNC RNTI
DCA	Dynamic Channel Allocation
DCCH	Dedicated Control Channel
DCFE	Dedicated Control Functional Entity
DCH	Dedicated Channel

8   Elementary RRC procedures

8.1 Idle mode procedures

8.1.1   Broadcast of system information

The information may be grouped into the following classes:

- information giving unique identification of the current network, location area, UTRAN registration area and cell
- information used for candidate cell measurements for handover and cell selection procedures
- information describing the current control channel structure
- information for controlling the random access channel utilisation
- information for controlling the common packet channel utilisation
- information defining different options supported within the cell
- protocol information

10 Message and information element functional definition and content

10.1 Radio Resource Control messages

10.1.1 RRC Connection Mobility Messages

10.1.1.1 ACTIVE SET UPDATE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE information elements	Activation time		O		
Phy CH information elements	Primary CCPCH info		M	Note 1	For each radio link to add
	SSDT cell identity		O		
	Downlink DPCH info		M		
	Primary CCPCH info		M	Note 1	For each radio link to delete
	SSDT indicator		O		
	Gated Transmission Control Info		O	Note 2	

Note 1: If it is assumed that primary CCPCH downlink scrambling code is allways allocated with sufficient reuse distances, primary CCPCH downlink scrambling code will be enough for designating the different radiolinks.
Note 2: The activation time should be present when the Gated Transmission control info is present in this message.

10.1.1.2 ACTIVE SET UPDATE COMPLETE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	

10.1.1.3 CELL UPDATE

This message is used by the UE to initiate a cell update procedure.
RLC-SAP: t.b.d.
Logical channel: t.b.d.

Direction: UE→UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	S-RNTI		M	FFS whether in RRC or MAC PDU.
	SRNC identity		M	
	Cell update cause		M	
Measurement information elements	Measurement identity number			Intra-frequency measurement related report
	Measured results			

10.1.1.4 CELL UPDATE CONFIRM **(All parameters for Physical CH IE are FFS)**

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: t.b.d.
Logical channel: t.b.d.
Direction: UTRAN→UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	S-RNTI		M	FFS whether in RRC or MAC PDU.
	SRNC identity		M	
	S-RNTI		O	New S-RNTI
	SRNC identity		O	New SRNC identity
	C-RNTI		O	New C-RNTI
UTRAN mobility information elements	URA update indicator		O	When present, it instructs UE to make URA updating
	URA identifier		O	Indicates to the UE, which URA it shall use in case of overlapping URAs.
CN information elements	PLMN identity		O	(Note1,2)
	CN domain identity		O	For each CN domain (Note1,2)
	NAS system info		O	For each CN domain (Note1,2)
~~Physical CH information elements~~	~~Default DPCH Offset Value~~		~~O~~	~~FFS~~

PhyCH information elements (FFS)	Frequency info		O		
	Uplink DPCH power control info		O	FFS	
	Uplink DPCH info		O	Either DPCH info or PRACH info	Uplink radio resources
	PRACH info (for RACH)		O		
	PRACH info (for FAUSCH)		O		
	Uplink timeslot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O		
	Downlink timeslot info		O	Note 3	
	SSDT indicator		O	Necessity is FFS	
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note4)	
	Gated Transmission Control info		O	FFS	
	Default DPCH Offset Value		O		

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.

10.1.1.5 HANDOVER COMMAND

<Functional description of this message to be included here>

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
Phy CH information elements	Frequency info		M		
	UL DPCH power control info		M		
	UL DPCH info		M		Uplink radio resources
	UL timeslot info		O		
	Primary CCPCH info		M	For each radio link. Note1	Downlink radio resources
	DL DPCH info		M		
	DL timeslot info		O	Note 2	
	SSDT indicator		O		

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

Note 2: It is assumed that the DL timeslot configuration is the same for all radio links, whether or not macro-diversity is supported for TDD.

10.1.1.6 HANDOVER COMPLETE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	

10.1.1.7 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: t.b.d.
Logical channel: DCCH
Direction: UTRAN→UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	Activation time		O	
Other information elements	Inter-System message		M	

10.1.1.8 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: t.b.d.
Logical channel: DCCH
Direction: UE→UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	Inter-System handover failure cause		O	FFS
Other Information elements	Inter-System message		O	

10.1.1.9 URA UPDATE

This message is used by the UE to initiate a URA update procedure.

RLC-SAP: t.b.d.
Logical channel: t.b.d.

Direction: UE→UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	S-RNTI		M	FFS whether in RRC or MAC PDU.
	SRNC identity		M	
	URA update cause		M	

10.1.1.10 URA UPDATE CONFIRM

*<Functional description of this message to be included here>*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: t.b.d.
Logical channel: t.b.d.
Direction: UTRAN→UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	S-RNTI		M	FFS whether in RRC or MAC PDU.
	SRNC identity		M	
	S-RNTI		O	New S-RNTI
	SRNC identity		O	New SRNC identity
	C-RNTI		O	New C-RNTI
UTRAN mobility information elements	URA identifier		O	Indicates to the UE, which URA it shall use in case of overlapping URAs.
CN information elements	PLMN identity		O	(Note1,2)
	CN domain identity		O	For each CN domain (Note1,2)
	NAS system info		O	For each CN domain (Note1,2)

[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.]

10.1.1.11 RNTI REALLOCATION

<Functional description of this message to be included here>
RLC-SAP: t.b.d.
Logical channel: t.b.d.
Direction: UTRAN→UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	S-RNTI		O	FFS whether in RRC or MAC PDU.
	SRNC identity		O	
	S-RNTI		O	New S-RNTI
	SRNC identity		O	New SRNC identity
	C-RNTI		O	New C-RNTI
CN information elements	PLMN identity		O	(Note1,2)
	CN domain identity		O	For each CN domain (Note1,2)
	NAS system info		O	For each CN domain (Note1,2)

[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.]

10.1.1.12 RNTI REALLOCATION COMPLETE

This message is used to confirm the new RNTI information for the UE.

RLC-SAP: t.b.d.

Logical channel: DCCH

Direction: UE→UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	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: t.b.d.

Logical channel: DCCH

Direction: UTRAN→UE

Information element category	Information elements		REFERENCE	TYPE	NOTE
	Message Type			M	
Measurement Information elements	Measurement Identity Number			M	
	Measurement Command			M	
	Measurement Type			O	
	Measurement Reporting Mode			O	
	Measurement Object	Intra-frequency cell info		C	If Measurement Type = Intra frequency measurement
		Inter-frequency cell info		C	If Measurement Type = Inter frequency measurement
		Inter-system cell info		C	If Measurement Type = Inter system measurement
		Traffic volume measurement object		C	If Measurement Type = Traffic volume measurement
		Quality measurement object		C	If Measurement Type = Quality measurement
	Measurement Quantity (Note1)	Intra-frequency measurement quantity		C	If Measurement Type = Intra frequency measurement
		Inter-frequency measurement quantity		C	If Measurement Type = Inter frequency measurement
		Inter-system measurement quantity		C	If Measurement Type = Inter system measurement
		Traffic volume measurement quantity		C	If Measurement Type = Traffic volume measurement
		Quality measurement quantity		C	If Measurement Type = Quality measurement
		UE Internal measurement quantity		C	If Measurement Type = UE Internal measurement
	Reporting quantity (Note2)	Intra-frequency measurement reporting quantity		O	If Measurement Type = Intra frequency measurement
		Inter-frequency measurement reporting quantity		O	If Measurement Type = Inter frequency measurement
		Inter-system measurement reporting quantity		O	If Measurement Type = Inter system measurement
		Traffic volume measurement reporting quantity		O	If Measurement Type = Traffic volume measurement
		Quality measurement reporting quantity		O	If Measurement Type = Quality measurement
		UE Internal measurement reporting quantity		O	If Measurement Type = UE Internal measurement
	Measurement Reporting Criteria (Note3)	Intra-frequency measurement reporting criteria		C	If Measurement Type = Intra frequency measurement
		Inter-frequency measurement reporting criteria		C	If Measurement Type = Inter frequency measurement
		Inter-system measurement reporting criteria		C	If Measurement Type = Inter system measurement

Traffic volume measurement reporting criteria		C	If Measurement Type = Traffic volume measurement	
Quality measurement reporting criteria		C	If Measurement Type = Quality measurement	
UE Internal measurement reporting criteria		C	If Measurement Type = UE Internal measurement	
Periodical reporting criteria		C		

Note 1: Necessary only in event trigger reporting mode.
Note 2: It is FFS whether it is necessary to separate the reporting quantity for each type.
Note 3: Periodical reporting criteria is used only in periodical reporting mode and others are used in event trigger mode.
Note 4: The network may order the UE to report other measurements when UE internal measurements are reported

10.1.2.2 MEASUREMENT REPORT

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

Information element category	Information elements		REFERENCE	TYPE	NOTE	
	Message Type			M		
Measurement Information elements	Measurement Identity Number			M		For each meas.rep. in this message (Note 1)
	Event Result	Intra-frequency measurement event results		C	Necessary only in event trigger reporting mode (Note 2)	
		Inter-frequency measurement event results		C		
		Inter-system measurement event results		C		
		Traffic volume measurement event results		C		
		Quality measurement event results		C		
	Measured Results			O	Necessary only when indicated optionally by Reporting Quantity in Measurement Control	

Note 1: If it is possible to send many measurement results that are identified by different measurement identity numbers in the same Measurement Report is FFS. An alternative solution is to admit 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 and Notification Messages

10.1.3.1 NOTIFICATION

<Functional description of this message to be included here>
RLC-SAP: t.b.d.
Logical channel: PCCH
Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	

10.1.3.2 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: t.b.d.
Logical channel: PCCH
Direction: UTRAN → UE

Information element Category	RRC Information element	REFERENCE	TYPE	NOTE
	Message Type		M	
UE Information elements	Paging record		M	One paging record for each UE to be paged.
Other information elements	BCCH modification info		O	FFS

10.1.3.3 PAGING TYPE 2

This message is used to page an UE in connected mode, when using the DCCH for CN originated paging.
RLC-SAP: t.b.d.
Logical channel: DCCH
Direction: UTRAN → UE

Information element Category	RRC Information element	REFERENCE	TYPE	NOTE
	Message Type		M	
UE Information elements	CN domain identity		M	
	Paging cause		M	

10.1.4 RRC Connection Establishment and maintenance messages

10.1.4.1 RRC CONNECTION RE-ESTABLISHMENT **(All parameters are FFS)**

<Functional description of this message to be included here>
RLC-SAP: t.b.d.
Logical channel: t.b.d.

Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE		
	Message Type		M			
~~Physical CH information elements~~	~~Default DPCH Offset Value~~		~~O~~			
PhyCH information elements (FFS)	Frequency info		O			
	Uplink DPCH power control info		O	FFS		
	Uplink DPCH info		O	Either DPCH info or PRACH info	Uplink radio resources	
	PRACH info (for RACH)		O			
	PRACH info (for FAUSCH)		O			
	Uplink timeslot info		O			
	Primary CCPCH info		O	For each radio link	Downlink radio resources	
	Downlink DPCH info		O			
	Secondary CCPCH info		O			
	Downlink timeslot info		O	Note 1		
	SSDT indicator		O	Necessity is FFS		
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)		
	Default DPCH Offset Value		O			

Note 1: 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 2: How to map UL and DL radio resource in the message is FFS.

10.1.4.2 RRC CONNECTION RE-ESTABLISHMENT COMPLETE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	

10.1.4.3 RRC CONNECTION RE-ESTABLISHMENT REQUEST

<Functional description of this message to be included here>
RLC-SAP: t.b.d.
Logical channel: t.b.d
Direction: UE → UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE information elements	S-RNTI		M	FFS whether conveyed on RRC or MAC.	
	SRNC identity		M		
Measurement information elements	Measurement identity number		M	Refers to system information. Note 1	For each measurement report
	Measured results		M		

Note 1: The necessity and usage of Measurement identity number in this message is FFS.

10.1.4.4 RRC CONNECTION RELEASE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	Release cause		M	
	Number of Quick Repeat		M	

10.1.4.5 RRC CONNECTION RELEASE COMPLETE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	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: t.b.d.
Logical channel: CCCH
Direction: UE → UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE information elements	Initial UE identity		M	FFS whether conveyed on RRC or MAC.	
	Establishment cause		M		
	Initial UE capability		O	Necessity is FFS	
Measurement information elements	Measurement identity number		M	Refers to system information. Note 1	For each measurement report
	Measured results		M		

Note 1: The necessity and usage of Measurement identity number in this message is FFS.

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: t.b.d.
> Logical channel: CCCH
> Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE information elements	Initial UE identity		M	FFS whether conveyed on RRC or MAC.	
	S-RNTI		M		
	SRNC identity		M		
	C-RNTI		O	Only if assigned to a common transport channel	
	Activation time		O		
RAB information elements	RAB identity		M	Indicates the signalling link	
	Signalling link type		M		
	RAB multiplexing info		M	For the signalling link	
TrCH information elements	TFCS		O	Uplink TFCS	
	TFCS		O	Downlink TFCS	
	TFC subset		O		
	Transport channel identity		M	For each new transport channel	Uplink transport channels
	TFS		M		
	Transport channel identity		M	For each new transport channel	Downlink transport channels
	TFS		M		
PhyCH information elements	Frequency info		O		
	Uplink DPCH power control info		O		
	Uplink DPCH info		O	Either DPCH info or PRACH info ~~Maximum one of these~~	Uplink radio resources
	PRACH info (for RACH)		O		
	Uplink timeslot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O		
	Downlink timeslot info		O	Note 1	
	SSDT indicator		O	Necessity is FFS	
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)	
	Gated Transmission Control info		O	Note 3~~FFS~~	
	Default DPCH Offset Value		O		

Note 1: 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 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: t.b.d.

        Logical channel: DCCH

        Direction: UE → UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	Necessity is 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: t.b.d.

        Logical channel: CCCH

        Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
UE information elements	Initial UE identity		M	FFS whether conveyed on RRC or MAC.
	Rejection cause		M	
	Wait time		O	

10.1.4.10 RRC STATUS

This message is transmitted by the network when the network requests UE to release one of several signalling connections.

        RLC-SAP: t.b.d.

        Logical channel: DCCH

        Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
CN information elements	CN domain identity		M	

10.1.4.11 RRC STATUS ACK

This message is transmitted by UE as an acknowledgement for RRC STATUS message.

        RLC-SAP: t.b.d.

        Logical channel: DCCH

        Direction: UE → UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	

10.1.5 Radio Access 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: t.b.d.

        Logical channel: DCCH

        Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE Information elements	Activation time		O		
	C-RNTI		O	Only RACH/FACH	
UTRAN mobility Information elements	URA update indicator		O	When PCH shall be used, and when present, it instructs the UE to make URA updating	
PhyCH information elements	Uplink DPCH power control info		O		
	Frequency info		O		
	Uplink DPCH info		O	Either DPCH info or PRACH infoMaximum one of these	Uplink radio resources
	PRACH info (for RACH)		O		
	PRACH info (for FAUSCH)		O		
	Uplink time slot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O	For FACH	
	Secondary CCPCH info		O	For PCH	
	Downlink timeslot info		O	Note 1	
	SSDT indicator		O	Necessity is FFS	
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)	
	Gated Transmission Control info		O	FFS	
	Default DPCH Offset Value		O		

        Note 1: 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 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: t.b.d.

Logical channel: DCCH
Direction: UE → UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	Necessity is FFS

10.1.5.3 RADIO ACCESS 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: t.b.d.
Logical channel: DCCH
Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE Information elements	Activation time		O		
	C-RNTI			Only RACH/FACH	
RAB information elements	RAB identity		M		For each RAB affected by this message
	RLC info		O	FFS	
	RAB multiplexing info		M		
TrCH information elements	TFCS		O	for uplink DCHs	
	TFCS		O	for downlink DCHs	
	TFC subset		O	for DCHs in uplink	
	Transport channel identity		O	For each removed transport channel	Uplink transport channels
	Transport channel identity		O	For each reconfigured or added transport channel	
	TFS		O		
	Dynamic Control		O	For each reconfigured or added transport channel controlled by DRAC	
	Transmission time validity		O		

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Time duration before retry		O		
	Silent period duration before release		O		
	Transport channel identity		O	For each removed transport channel	Downlink transport channels
	Tranpsort channel identity		O	For each reconfigured or added transport channel	
	TFS		O		
PhyCH information elements	Uplink DPCH power control info		O		
	Frequency info		O		
	Uplink DPCH info		O	Either DPCH info or PRACH info Maximum one of these	Uplink radio resources
	PRACH info (for RACH)		O		
	PRACH info (for FAUSCH)		O		
	Uplink timeslot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O		
	Downlink timeslot info		O	Note 1	
	SSDT indicator		O	Necessity is FFS	
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)	
	Gated Transmission Control info		O	Note3FFS	
	Default DPCH Offset Value		O		

Note 1: 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 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 ACCESS BEARER RECONFIGURATION COMPLETE

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

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	Necessity is FFS

10.1.5.5 RADIO ACCESS BEARER RELEASE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE Information elements	Activation time		O		
	C-RNTI		O	Only RACH/FACH	
RAB information elements	RAB identity		M	For each released RAB	
	RAB identity		O	For each other RAB affected by this message	
	RAB multiplexing info		O		
TrCH information elements	TFCS		O	for uplink DCHs	
	TFCS		O	for downlink DCHs	
	TFC subset		O	for DCHs in uplink	
	Transport channel identity		O	For each removed transport channel	Uplink transport channels
	Transport channel identity		O	For each reconfigured or added (FFS) transport channel	
	TFS		O		
	Dynamic Control		O	For each reconfigured or added (FFS) transport channel, controlled by DRAC	
	Transmission time validity		O		
	Time duration before retry		O		
	Silent period duration before release		O		
	Transport channel identity		O	For each removed transport channel	Downlink transport channels
	Transport channel identity		O	For each reconfigured or added transport channel	
	TFS		O		
PhyCH information elements	Uplink DPCH power control info		O		
	Frequency info		O		
	Uplink DPCH info		O	Either DPCH info or PRACH info~~Maximum one of these~~	Uplink radio resources
	PRACH info (for RACH)		O		
	PRACH info (for FAUSCH)		O		
	Uplink timeslot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O		
	Downlink timeslot info		O	Note 1	
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)	
	Gated Transmission Control info		O	Note3	

Note 1: 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 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.

10.1.5.6 RADIO ACCESS BEARER RELEASE COMPLETE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	

10.1.5.7 RADIO ACCESS BEARER SETUP

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

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
CN information elements	NAS binding info		M	Transparent non access stratum info e.g. bearer identity.	
	CN domain identity				
UE Information elements	Activation time		O		
	C-RNTI		O	Only RACH/FACH	
RAB information elements	RAB identity		M	For the new RAB	
	RLC info		M		
	RAB multiplexing info		M		
	RAB identity		O	For each other RAB affected by this message	
	RAB multiplexing info		O		
TrCH information elements	TFCS		O	for uplink DCHs	
	TFCS		O	for downlink DCHs	
	TFC subset		O	for DCHs in uplink	
	Transport channel identity		O	For each removed transport channel	Uplink transport channels
	Transport channel identity		O	For each reconfigured or added transport channel	
	TFS		O		
	Dynamic Control		O	For each reconfigured or added transport channel, controlled by DRAC	
	Transmission time validity		O		
	Time duration before retry		O		
	Silent period duration before release		O		
	Transport channel identity		O	For each removed (FFS) transport channel	Downlink transport channels
	Transport channel identity		O	For each reconfigured or added transport channel	
	TFS		O		
PhyCH information elements	Uplink DPCH power control info		O		
	Frequency info		O		
	Uplink DPCH info		O	~~Either DPCH info or PRACH info~~Maximum one of these	Uplink radio resources
	PRACH info (for RACH)		O		
	PRACH info (for FAUSCH)		O		
	Uplink timeslot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O		
	Downlink timeslot info		O	Note 1	
	SSDT indicator		O	Necessity is FFS	

	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)
	Gated Transmission Control info		O	FFS
	Default DPCH Offset Value		O	

Note 1: 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 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 ACCESS BEARER SETUP COMPLETE

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	Necessity is FFS

10.1.5.9 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: t.b.d.
Logical channel: DCCH
Direction: UTRAN → UE

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
UE Information elements	Activation time		O		
	C-RNTI		O	Only RACH/FACH	
	Control-only-state-timer		O	FFS	
TrCH information elements	TFCS		O	for uplink DCHs	
	TFCS		O	for downlink DCHs	
	TFC subset		O	for DCHs in uplink	
	Transport channel identity		O	For each reconfigured transport channel	Uplink transport channels
	TFS		O		
	Dynamic Control		O	For each reconfigured transport channel, controlled by DRAC	
	Transmission time validity		O		
	Time duration before retry		O		
	Silent period duration before release		O		
	Transport channel identity		O	For each reconfigured transport channel	Downlink transport channels
	TFS		O		
PhyCH information elements	Uplink DPCH power control info		O		
	Frequency info		O		
	Uplink DPCH info		O	Either DPCH info or PRACH info~~Maximum one of these~~	Uplink radio resources
	PRACH info (for RACH)		O		
	PRACH info (for FAUSCH)		O		
	Uplink timeslot info		O		
	Primary CCPCH info		O	For each radio link	Downlink radio resources
	Downlink DPCH info		O		
	Secondary CCPCH info		O		
	Downlink timeslot info		O	Note 1	
	SSDT indicator		O	Necessity is FFS	
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note2)	
	Gated Transmission Control info		O	Note3~~FFS~~	
	Default DPCH Offset Value		O		

Note 1: 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 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 TRANSPORT CHANNEL RECONFIGURATION COMPLETE

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

RLC-SAP: t.b.d.

Logical channel: DCCH
Direction: UE → UTRAN

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
Phy CH information elements	SSDT indicator		O	Necessity is FFS

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

10.1.5.11 TRANSPORT FORMAT COMBINATION CONTROL

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
TrCH information elements	TFC subset		M	for DCHs in UL

10.1.6 System Information Messages

10.1.6.1 SYSTEM INFORMATION

<Functional description of this message to be included here>
RLC-SAP: t.b.d.
Logical channel: BCCH or DCCH or CCCH
Direction: UTRAN → UE

NOTE: The division of the system information into messages is FFS.

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
CN information elements	PLMN Identity		M		
	CN domain identity		M	For each Core Network Domain. Information must be included for at least one core network domain type.	
	NAS system information		M		
UTRAN mobility information elements	URA identity		M	For each URA	
	Information for periodic cell and URA update		M	*Note: not for each URA any more*	
	Cell identity		M	The necessity and usage of cell identity is FFS.	
	Cell selection and re-selection info		M		
UE information elements	Uplink access control info		M		
	Transmission probability		O	For all UE having DCH controlled by DRAC procedure	For each class of UE Note2
	Maximum bit rate		O		
	CPCH parameters		O	For all UE's assigned any CPCH set in this cell	
PhyCH information elements	Frequency info		O		
	Primary CCPCH info.		O		
	~~Frequency info~~		~~O~~	For each RACH	
	PRACH info		M		
	PRACH power control info		M		
	~~Frequency info~~		~~O~~	For each FACH on secondary CCPCH	
	Secondary CCPCH info		M		
	~~Frequency info~~		~~O~~	For each PCH on secondary CCPCH	
	Secondary CCPCH info		M		
	AICH info		M		
	PICH info		M	(FFS)	
	~~PRACH power control info~~		~~M~~		
	CPCH SET Info		O	UL/DL radio resource for CPCH control (Note3,4)	
	CPCH set persistency values		O	For each CPCH SET (Note5)	

Measurement Information elements	Measurement Identity Number		M	Note 1	For each Intra-frequency measurement control
	Intra-frequency cell info		M	For each measurement object	
	Intra-frequency measurement quantity		M		
	Intra-frequency measurement reporting criteria		M		
	Intra-frequency reporting quantity for RACH reporting		C	Only included if RACH reporting is indicated in the reporting criteria	

	~~Measurement Identity Number~~			~~M~~	~~Note 1~~	~~For each Inter-frequency measurement control~~
	~~Inter-frequency cell info~~			~~M~~	~~For each measurement object~~	
	~~Inter-frequency measurement quantity~~			~~M~~		
	~~Inter-frequency measurement reporting criteria~~			~~M~~		
	~~Measurement Identity Number~~			~~M~~	~~Note 1~~	~~For each Inter-system measurement control~~
	~~Inter-system cell info~~			~~M~~	~~For each measurement object~~	
	~~Inter-system measurement quantity~~			~~M~~		
	~~Inter-system measurement reporting criteria~~			~~M~~		
Measurement Information elements	Measurement Identity Number			M		
	Measurement Type			O		
	Measurement Reporting Mode			O		
	Measurement Object	Intra-frequency cell info		C	If Measurement Type = Intra frequency measurement	
		Inter-frequency cell info		C	If Measurement Type = Inter frequency measurement	
		Inter-system cell info		C	If Measurement Type = Inter system measurement	
	Measurement Quantity	Intra-frequency measurement quantity		C	If Measurement Type = Intra frequency measurement	
		Inter-frequency measurement quantity		C	If Measurement Type = Inter frequency measurement	
		Inter-system measurement quantity		C	If Measurement Type = Inter system measurement	
	Reporting quantity	Intra-frequency measurement reporting quantity		O	If Measurement Type = Intra frequency measurement	
		Intra-frequency measurement reporting quantity for RACH reporting		O	If Measurement Type = Intra frequency measurement	
		Inter-frequency measurement reporting quantity		O	If Measurement Type = Inter frequency measurement	
		Inter-system measurement reporting quantity		O	If Measurement Type = Inter system measurement	

Measurement Reporting Criteria	Intra-frequency measurement reporting criteria		C	If Measurement Type = Intra frequency measurement
	Inter-frequency measurement reporting criteria		C	If Measurement Type = Inter frequency measurement
	Inter-system measurement reporting criteria		C	If Measurement Type = Inter system measurement
	Periodical reporting criteria		C	

Note 1: The ~~necessity and~~ usage of Measurement identity number in this message is FFS.
Note 2: The split of parameters into several System Information message X is FFS.
Note 3: How to map UL and DL radio resource in the message is FFS.
Note 4: Possible to set several CPCH SET info.~~.~~(FFS)
Note 5: "CPCH persistency value" and "CPCH SET Info" may be mapped to different SYSTEM INFORMTION blocks.

10.1.7 Other Messages

10.1.7.1 UE CAPABILITY INFORMATION

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

Information element category	Information elements	REFERENCE	TYPE	NOTE	
	Message Type		M		
CN information elements	NAS message		M	Includes the CN capability information	
UE information elements	Power control capability		M		UTRAN capability information
	Code resource capability		M		
	UE mode capability		M		
	Transport CH support capability		O		
	Ciphering capability		M		
	Macro diversity capability		M		
	FAUSCH usage support		O	Indicates true/false for "DCH allocation function", "USCH capability request function".	
Other information elements	Inter-system message		O	Includes inter-system classmark	

Note: The WG1 and WG4 discussion should be concluded before the contents of this message can be finalized.

10.1.7.2 UE CAPABILITY INFORMATION CONFIRM

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	

10.1.7.3 DIRECT TRANSFER

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

Information element category	Information elements	REFERENCE	TYPE	NOTE
	Message Type		M	
CN information elements	CN domain identity		M	
	NAS message		M	
Measurement information elements	Measured results		O	Intra-frequency measurement related report

10.2 Information element functional definitions

10.2.3 UE Information elements

10.2.3.8 Control-only-state timer

This IE indicates for how long the UE shall stay in the control-only-state. *Editors note: the exact usage of this IE needs some clarification.*

10.2.3.14 Initial UE capability

This is the UE capability information given in the RRC connection request message. The exact type of information is FFS.

Parameters	REFERENCE	TYPE	NOTE
Support for Transport CH		O	Indicates supporting Transport CH

10.2.3.28 CPCH Parameters

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

Parameters	REFERENCE	TYPE	NOTE	
NS_{IP}		M	Number of slots for initial delay for this	
Priority level		M	priority level	
$N_{ap\_retrans\_max}$		M	Max number of AP transmissions without AP-AICH response (access cycle), a PHY parameter.	Backoff control parameters
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	Number of slots used to determine Tau values for CPCH channel timing	CPCH channel timing

10.2.4 Radio Access Bearer Information elements

10.2.4.2 RLC info

Parameters	REFERENCE	TYPE	NOTE	
RLC mode		M	Indicates if the RLC entity for a certain RAB should use Acknowledged, Non Acknowledged or Transparent mode data transfer. *[Note: It is FFS if this parameter always is the same in both UL and DL.]*	Uplink RLC info
RLC in sequence delivery		O	Indication if RLC should preserve the order of higher layer PDUs that were transmitted through RLC. *[Note: It is FFS if this parameter always is the same in both UL and DL.]*	
RLC PDU size		C	Size of RLC Protocol Data Units. See Note 1	
RLC transmission window size		O	A flow control parameter used to set the maximum number of RLC PDUs sent without getting them acknowledged	
RLC retransmission info		M	This could be the number of attempts to retransmit a RLC PDU before it is discarded, or different timer values.	
RLC mode		M		Downlink RLC info
RLC in sequence delivery		O		
RLC PDU Size		M	Note 1	
RLC transmission window size		O		
RLC retransmission info		O	*Is this needed to send to the UE for downlink?*	

Note1: RLC PDU size may be derived from transport block size and not explicitly transfered across the radio interface.

Parameters	REFERENCE	TYPE	NOTE		
RLC Mode		M	Note 1		Uplink RLC
PU size		O			
Transmission RLC discard		O		Only for Non-transparent RLC	
Transmission window size		C	Only for acknowledged mode		
Polling info		C			
RLC Mode		M	Note 1		Downlink RLC
In-sequence delivery		O			
PU size		M			
Reception RLC discard Timer		O	Only if timer based discard without explicit signalling is used		
Receiving window size (FFS)		C	Only for acknowledged mode		
Downlink RLC STATUS info		O	Note 2		

Note 1: It is FFS if this IE always includes the same parameter values for both uplink and downlink RLC.

Note 2:It is FFS whether "Receiving window size" is necessary or not.

10.2.4.2.1 RLC Mode
 Indicates if Acknowledged, Unacknowledged or Transparent mode RLC should be used.

10.2.4.2.2 In-sequence delivery
Indication if RLC should preserve the order of higher layer PDUs when these are delivered.

10.2.4.2.3 PU size

Indicates the size of RLC Payload Units.

10.2.4.2.4 Transmission RLC Discard

Parameters	REFERENCE	TYPE	NOTE
SDU Discard Mode		M	Different modes for discharge the RLC buffer on the transmitter side; Timer based with explicit signalling, Timer based without explicit signalling or Discard after Max_DAT retransmissions. For unacknowledged mode only Timer based without explicit signalling is applicable.
Timer_discard		C	Elapsed time before a SDU is discarded. Only present if timer based discard mode is chosen.
Max_DAT		C	Number of retransmissions of a PU before a SDU is discarded. Only present if this discard mode is chosen.

10.2.4.2.5 Transmission window size

Maximum number of RLC PUs sent without getting them acknowledged. This parameter is needed if acknowledged mode is used.

10.2.4.2.6 Receiving window size (FFS)

Maximum number of RLC PUs allowed to be received. This parameter is needed if acknowledged mode is used.(Necessity is FFS.)

10.2.4.2.7 Polling info

Parameters	REFERENCE	TYPE	NOTE
Timer_poll_prohibit		O	Minimum time between polls
Timer_poll		O	Started when poll is transmitted. New poll when timer expires and no STATUS received.
Poll_PU		O	Poll at every Poll_PU PU
Poll_SDU		O	Poll at every Poll_SDU SDU
Last transmission PU poll		O	Indicates if poll at last PU in transmission buffer
Last retransmission PU poll		O	Indicates if poll at last PU in retransmission buffer
Poll_Window		O	Poll at Poll_Window % of transmission window
Timer_poll_periodic		O	Timer for periodic polling

 Note: At least one or more parameters are necessary when polling info is sent.

10.2.4.2.8 Reception RLC discard Timer

Elapsed time before a SDU is discarded. Only present if timer based discard mode without explicit signalling is chosen.

10.2.4.2.9 Downlink RLC STATUS info

Parameters	REFERENCE	TYPE	NOTE
Timer_Status_Prohibit		O	Minimum time between STATUS reports
Timer_EPC		O	Timer for EPC
Missing PU Indicator		O	Indicates if UE should send a STATUS report for each missing PU that is detected
Timer_STAUS_periodic		O	Timer for periodic STATUS reports

10.2.6 Physical CH Information elements

10.2.6.1 Frequency info

Parameters	REFERENCE	TYPE	NOTE
UTRA RF Channel Number~~Frequency number~~		M	A unique identifier for the channel raster and its associated parameters (as described by the other parameters within this info element)~~Designate the centerfrequency of the uplink carrier~~
Raster Position		O	Provided to enable the definition of permitted carrier frequency associated to the specific UTRA RF Channel Number parameter
Duplex distance		O	Necessity is FFS
Priority		O	Enable the setting of priority of the UTRA RF Channel Number parameter, to facilitate efficient system/ cell/ channel identification and selection processes
Chip rate		O	
RF Channel Type~~Mode~~		O	Identifies whether the UTRA RF Channel Number parameter is FDD/ TDD/ uplink/ downlink only~~Designate FDD or TDD mode~~

10.2.6.2 Primary CCPCH info

Parameters	REFERENCE	TYPE	NOTE
DL scrambling code		~~M~~O	DL scrambling code used for Primary CCPCH
STTD indicator		O	

10.2.6.3 Secondary CCPCH info

Parameters	REFERENCE	TYPE	NOTE
DL scrambling code		O	Only needed if different from DL scrambling code of Primary CCPCH
Channelization code		M	
STTD indicator		O	

10.2.6.X AICH info

Parameters	REFERENCE	TYPE	NOTE
DL scrambling code		O	Only needed if different from DL scrambling code of Primary CCPCH
Channelization code		M	
STTD indicator		O	

10.2.6.X PICH info

Parameters	REFERENCE	TYPE	NOTE

10.2.6.4 PRACH info (for RACH)

Parameters	REFERENCE	TYPE	NOTE
Access slot		M	For each allowed access slot for the preambles
Preamble spreading code		M	For each code to use for spreading of the preamble. There is also a one to one mapping from preamble code to what scrambling code to use for the message part.
Preamble signature		M	For each allowed preamble signature.
Spreading factor		M	For each rate or SF that are allowed to use on the data part (I-branch) in the message part of the random access

10.2.6.X PRACH info (for FAUSCH)

Parameters	REFERENCE	TYPE	NOTE
Fast access slot		M	For each allowed access slot for the preambles (every 16chips)
Preamble spreading code		M	For each code to use for spreading of the preamble.
Preamble signature		M	For each allowed preamble signature.
FAUSCH usage		M	Indicates true/false for "use for DCH allocation", "use for USCH capability request".

10.2.6.6 Uplink DPCH info

Parameters	REFERENCE	TYPE	NOTE	
UL scrambling code		M	What short or long uplink scrambling code a certain UE should use	
DPCCH channelization code		M	SF of the channelization code for control part. *[The necessity of this parameter is FFS.]*	
DPDCH channelization code		M	SF of the channelization code for data part	For each DPDCH

10.2.6.8 Downlink DPCH info

Parameters	REFERENCE	TYPE	NOTE	
DL scrambling code		O	Only needed if different from DL scrambling code of Primary CCPCH	
DL channelization code		M	Channelization codes to be used in the downlink for DPCH	For each DPCH
Transmission diversity mode		O	Only needed if STTD is applied. Indicates: -Open loop mode (STTD) -Feedback mode 1 -Feedback mode 2 -Feedback mode 3 FFS	

10.2.6.13 Gated Transmission Control info (FFS)

Parameters	REFERENCE	TYPE	NOTE
Gating pattern		M	Indicates gating pattern (periodic. al or random(FFS)) (FFS)
Gating rate		M	Indicates gated transmission rate(Full rate, 1/3, 1/5 or 0) no gating, 1/2 gating, 1/4 gating or 1/8 gating (FFS)
Gating activation time		M	FFS

10.2.6.16 CPCH set info

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

Parameters	REFERENCE	TYPE	NOTE
CPCH set ID		C	Indicates the ID number for a particular CPCH set allocated to a cell. Necessity is FFS.
AP preamble code		O	256 chip preamble code for AP in UL
AP-AICH channelisation code		O	256 chip channelisation code for AP-AICH in DL
CD preamble code		O	256 chip preamble code for CD in UL
CD-AICH channelisation code		O	256 chip channelisation code for CD-AICH in DL
Signature code N		O	Signature code for CPCH channel selection in UL. 16 signatures, 16 bits each, N from 1-16.
UL scrambling code		O	For each CPCH channel in this CPCH set. (16 MAX with 1 signature per channel.)
UL channelisation code		O	
DL channelisation code		O	
NF$_{max}$ (Max packet length in frames)		O	
Signature pointer (maps to set of signatures for this channel)		O	

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

10.2.6.17 CPCH persistency values

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

Parameters	REFERENCE	TYPE	NOTE
CPCH set ID		M	Identifier for CPCH set info.
PV _CPCHn_		M	Persisteny value for CPCHn. One PV for each CPCH channel in this CPCH set.

10.2.7 Measurement Information elements

10.2.7.3 Measurement Type

One of the types from a predefined list where each type describes what the UE shall measure. The types are:
- Intra-frequency measurements
- Inter-frequency measurements
- Inter-system measurements
- Traffic volume measurements
- Quality measurements
- UE internal measurement

10.2.7.24 Intra-frequency measurement reporting criteria

The triggering of the event-triggered reporting for an intra-frequency measurement. All events concerning intra-frequency measurements are labeled 1x where x is a, b, c….

Event 1a: A Primary CCPCH enters the Reporting Range [Note1]
Event 1b: A Primary CCPCH leaves the Reporting Range [Note2]
Event 1c: A Non-active Primary CCPCH becomes better than an active Primary CCPCH [Note3]
Event 1d: Change of best cell [Note4, 5]
Event 1e: Other types of ranking of Primary CCPCHs (FFS)

Parameters		REFERENCE	TYPE	NOTE
Common parameter for all events	Max number of reporting cells		M	
For each event	Event ID		M	1a, 1b, 1c, 1d or 1e
	Triggering condition		C	For event 1a, 1b, 1e, 1f Indicates whether event shall be triggered by: -Active set cells only -Monitored set cells only -Both active set cells and monitored set cells
	Reporting Range		C	In event 1a,1b

	Hysteresis		O	In event 1a, 1b, 1c,1d
	Reporting deactivation threshold		C	In event 1a Indicates the maximum number of cells allowed in the active set in order for event 1a to occur. Value 0 indicates "not applicable".
	Replacement activation threshold		C	In event 1c Indicates the minimum number of cells allowed in the active set in order for event 1c to occur. Value 0 indicates "not applicable".
	Time to trigger		M	Indicates the period of time between the timing of event detection and the timing of sending Measurement Report.
	Amount of reporting		*M*	*Measurement for the indicated Transport CH ID is "released" after the indicated amount of reporting from the UE itself. FFS*
	Reporting interval		*M*	*Indicates the interval of periodical reporting when such reporting is triggered by an event. A zero value indicates that event triggered periodical reporting shall not be applied.*
For RACH measurement reporting	Maximum number of reported cells on RACH		M	

[Note1: whether or not PCCPCH can be active is FFS]
[Note2: whether or not PCCPCH can be non-active is FFS]
[Note3: Details are FFS: It has been suggested to divide this event into two cases; I) a non-active PCCPCH exceeds the weakest active PCCPCH, II) a non-active PCCPCH exceeds the strongest active PCCPCH]
[Note4: When best PCCPCH in active set changes, all active cells are reported.]
[Note5: Whether this event can result in the reporting of non-active cells in addition to active cells is FFS.]

10.2.7.27 Traffic volume measurement reporting criteria

Contains the measurement reporting criteria information for a traffic volume measurement.

Parameters		**REFERENCE**	**TYPE**	**NOTE**
~~Common parameter for all transport CH~~				

For each transport CH	Transport CH ID		M	
	Threshold		M	
	Time to trigger		M	Indicates the period of time between the timing of event detection and the timing of sending Measurement Report.
	Pending time after trigger		M	Indicates the period of time during which it is forbidden to send any new measurement reports with the same measurement ID even if the triggering condition is fulfilled again.
	Amount of reporting		M	Measurement for the indicated Transport CH ID is "released" after the indicated amount of reporting from the UE itself. FFS
	Reporting interval		M	Indicates the interval of periodical report during the event is in the detected state FFS