TSG-RAN Meeting #17 Biarritz, France, 3 - 6 September 2002

Title: Agreed CRs (Release '99 and Rel-4/Rel-5 category A) to TS 25.331

Source: TSG-RAN WG2

Agenda item: 7.2.3

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Versio	Versio
R2-022283	agreed	25.331	1603		R99	Correction of RNTI used in PUSCH capacity request and physical shared channel allocation request	F	3.11.0	3.12.0
R2-022284	agreed	25.331	1604		Rel-4	Correction of RNTI used in PUSCH capacity request and physical shared channel allocation request		4.5.0	4.6.0
R2-022285	agreed	25.331	1605		Rel-5	Correction of RNTI used in PUSCH capacity request and physical shared channel allocation request		5.1.0	5.2.0
R2-022286	agreed	25.331	1606		R99	Correction to allowed logical channel list choice for RACH transport channels	F	3.11.0	3.12.0
R2-022287	agreed	25.331	1607		Rel-4	Correction to allowed logical channel list choice for RACH transport channels	А	4.5.0	4.6.0
R2-022288	agreed	25.331	1608		Rel-5	Correction to allowed logical channel list choice for RACH transport channels		5.1.0	5.2.0
R2-022289	agreed	25.331	1609		R99	SRNS relocation containers corrections	F	3.11.0	3.12.0
R2-022290	agreed	25.331	1610		Rel-4	SRNS relocation containers corrections	Α	4.5.0	4.6.0
R2-022291	agreed	25.331	1611		Rel-5	SRNS relocation containers corrections	Α	5.1.0	5.2.0
R2-022292	agreed	25.331	1612		R99	DCH quality target	F	3.11.0	3.12.0
R2-022293	agreed	25.331	1613		Rel-4	DCH quality target	Α	4.5.0	4.6.0
R2-022294	agreed	25.331	1614		Rel-5	DCH quality target	Α	5.1.0	5.2.0
R2-022295	agreed	25.331	1615		R99	Handling of variables CELL_INFO_LIST and MEASUREMENT_IDENTITY(2)	F	3.11.0	3.12.0
R2-022296	agreed	25.331	1616		Rel-4	Handling of variables CELL_INFO_LIST and MEASUREMENT_IDENTITY(2)	Α	4.5.0	4.6.0
R2-022297	agreed	25.331	1617		Rel-5	Handling of variables CELL_INFO_LIST and MEASUREMENT_IDENTITY(2)	Α	5.1.0	5.2.0
R2-022389	agreed	25.331	1618	1	R99	Correction of secondary CCPCH selection and PRACH selection		3.11.0	3.12.0
R2-022390	agreed	25.331	1619	1	Rel-4	Correction of secondary CCPCH selection and PRACH selection		4.5.0	4.6.0
R2-022391	agreed	25.331	1620	1	Rel-5	Correction of secondary CCPCH selection and PRACH selection	А	5.1.0	5.2.0

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19-23 August 2002

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- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.2.7 Physical Shared Channel Allocation [TDD only]



Figure 8.2.7-1: Physical Shared Channel Allocation

8.2.7.1 General

The purpose of this procedure is to allocate radio resources to USCH and/or DSCH transport channels in TDD mode, for use by a UE. This procedure can also be used to indicate to the UE, that a PUSCH allocation is pending, in order to prevent further capacity requests from the UE.

UEs are not required to receive FACH and DSCH simultaneously, i.e. if resources are allocated to DSCH the FACH reception may be suspended.

8.2.7.2 Initiation

To initiate the Physical Shared Channel Allocation procedure, the UTRAN sends the "PHYSICAL SHARED CHANNEL ALLOCATION" message on the downlink SHCCH or on the downlink DCCH using UM RLC. The CRNTL DSCH-RNTI shall be included for UE identification, if the message is sent on the SHCCH.

8.2.7.3 Reception of a PHYSICAL SHARED CHANNEL ALLOCATION message by the UF

Upon reception of a "PHYSICAL SHARED CHANNEL ALLOCATION" message, if the message is received on the downlink SHCCH the UE shall:

- 1> check the DSCH-RNTI to see if the UE is addressed by the message;
- 1> if the UE is addressed by the message, or if the message is received on the downlink DCCH:
 - 2> perform the following actions.
- 1> otherwise:
 - 2> ignore the message.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
- 1> if the IE "ISCP Timeslot list" is included:
 - 2> store the timeslot numbers given there for future Timeslot ISCP measurements and reports in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.
- 1> if the IE "PDSCH capacity allocation info" is included:
 - 2> configure the physical resources used for the downlink CCTrCH given by the IE "TFCS ID" according to the following:
 - 3> if the CHOICE "Configuration" has the value "Old configuration":
 - 4> if the UE has stored a PDSCH configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION with the identity given by the IE "PDSCH Identity":
 - 5> configure the physical resources according to that configuration.

- 4> otherwise:
 - 5> ignore the IE "PDSCH capacity allocation info".
- 3> if the CHOICE "Configuration" has the value "New configuration":
 - 4> configure the physical resources according to the information given in IE "PDSCH Info". If IE "Common timeslot info" or IE "PDSCH timeslots and codes" IE are not present in IE "PDSCH Info":
 - 5> reuse the configuration stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION for this CCTrCH.
 - 4> if the IE "PDSCH Identity" is included:
 - 5> store the new configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION using that identity.
- 2> start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
- 2> if the IE "Confirm request" has the value "Confirm PDSCH" and IE "PDSCH Identity" is included in IE "PDSCH capacity allocation info":
 - 3> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- 2> if the IE "PUSCH capacity allocation info" is included:
- 2> stop the timer T310, if running;
- 2> if the CHOICE "PUSCH allocation" has the value "PUSCH allocation pending":
 - 3> start the timer T311.
- 2> if the CHOICE "PUSCH allocation" has the value "PUSCH allocation assignment":
 - 3> stop the timer T311, if running;
 - 3> configure the physical resources used for the uplink CCTrCH given by the IE "TFCS ID" according to the following:
 - 4> if the CHOICE "Configuration" has the value "Old configuration":
 - 5> if the UE has stored a PUSCH configuration with the identity given by the IE "PUSCH Identity" in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION:
 - 5> configure the physical resources according to that configuration.
 - 5> otherwise:
 - 5> ignore the IE "PUSCH capacity allocation info".
 - 4> if the CHOICE "Configuration" has the value "New configuration", the UE shall:
 - 5> configure the physical resources according to the information given in IE "PUSCH Info". If IE "Common timeslot info" or IE "PUSCH timeslots and codes" is not present in IE "PUSCH Info":
 - 6> reuse the configuration stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION for this CCTrCH.
 - 5> if the IE "PUSCH Identity" is included:
 - 5> store the new configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION using that identity.
 - 3> start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
 - 3> if the IE "Traffic volume report request" is included:

- 4> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8 at the time indicated by the IE "Traffic volume report request".
- 3> if the IE "Confirm request" has the value "Confirm PUSCH" and IE "PUSCH Identity" is included in IE "PUSCH capacity allocation info":
 - 4> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- 1> determine the TFCS subset and hence the TFCI values which are possible given the PUSCH allocation for that CCTrCH;
- 1> configure the MAC-c/sh in the UE with this TFCS restriction if necessary;
- 1> transmit USCH Transport Block Sets as required, within the TFCS limits given by the PUSCH allocation.
- NOTE: If the UE has just entered a new cell and System Information Block Type 6has not yet been scheduled, PUSCH/PDSCH information should be specified in the allocation message.

The UE shall:

- 1> clear the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Accepted transactions" in the variable TRANSACTIONS;
- 1> and the procedure ends.

8.2.7.4 Invalid PHYSICAL SHARED CHANNEL ALLOCATION message

If the UE receives a PHYSICAL SHARED CHANNEL ALLOCATION message, which contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows. The UE shall:

- 1> ignore the invalid PHYSICAL SHARED CHANNEL ALLOCATION message;
- 1> submit the PUSCH CAPACITY REQUEST message for transmission on the uplink SHCCH, setting the information elements in the message as specified in subclause 8.2.8.3;
- 1> reset counter V310;
- 1> start timer T310;
- 1> proceed as described in subclause 8.2.8.

8.2.8 PUSCH capacity request [TDD only]

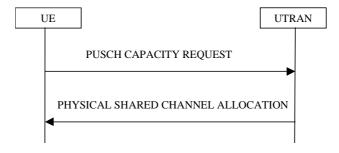


Figure 8.2.8-1: PUSCH Capacity request procedure

8.2.8.1 General

With this procedure, the UE transmits its request for PUSCH resources to the UTRAN. In the normal case, the UTRAN responds with a PHYSICAL SHARED CHANNEL ALLOCATION message, which either allocates the requested PUSCH resources, and/or allocates a PDSCH resource, or may just serve as an acknowledgement, indicating that PUSCH allocation is pending.

This procedure can also be used to acknowledge the reception of a PHYSICAL SHARED CHANNEL ALLOCATION message, or to indicate a protocol error in that message.

With the PUSCH CAPACITY REQUEST message, the UE can request capacity for one or more USCH.

8.2.8.2 Initiation

This procedure is initiated:

- 1> in the CELL_FACH or CELL_DCH state;
- 1> and when at least one RB using USCH has been established;
- 1> and when the UE sees the requirement to request physical resources (PUSCH) for an USCH channel or there is the need to reply to a PHYSICAL SHARED CHANNEL ALLOCATION message as described in clause 8.2.7 (i.e. to confirm the reception of a message, if requested to do so, or to indicate a protocol error).

The procedure can be initiated if:

- Timer T311 is not running.
- The timer T310 (capacity request repetition timer) is not running.

The UE shall:

- 1> set the IEs in the PUSCH CAPACITY REQUEST message according to subclause 8.2.8.3;
- 1> if the procedure is triggered to reply to a previous PHYSICAL SHARED CHANNEL ALLOCATION message by the IE "Confirm request" set to "Confirm PUSCH" and the IE "PUSCH capacity allocation info" is not present:
 - 2> transmit the PUSCH CAPACITY REQUEST message on RACH.
- 1> else:
 - 2> transmit the PUSCH CAPACITY REQUEST message on the uplink SHCCH.
- 1> set counter V310 to 1;
- 1> start timer T310.

8.2.8.3 PUSCH CAPACITY REQUEST message contents to set

With one PUSCH CAPACITY REQUEST message, capacity for one or more USCH can be requested. It shall include these information elements:

- 1> C-RNTI-DSCH-RNTI to be used as UE identity if the message is sent on RACH;
- 1> Traffic volume measured results for each radio bearer satisfying the reporting criteria as specified in the MEASUREMENT CONTROL procedure (if no radio bearer satisfies the reporting criteria, traffic volume measured results shall not be included). These results shall include:
 - 2> Radio Bearer ID of the Radio Bearer being reported;
 - 2> RLC buffer payload for these radio bearers, as specified by the MEASUREMENT CONTROL procedure.

The UE shall:

- 1> if the initiation of the procedure is triggered by the IE "Traffic volume report request" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message:
 - 2> report the traffic volume measurement result for the radio bearer mapped on USCH transport channel specified in the received message. These results shall include:
 - 3> Radio Bearer ID of the Radio Bearer being reported;

- 3> RLC buffer payload for this radio bearer.
- 1> if the initiation of the procedure is triggered by the IE "Confirm request" set to "Confirm PDSCH" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message and the IE "PUSCH capacity allocation info" is present in this message:
 - 2> set the CHOICE "Allocation confirmation" to "PDSCH Confirmation" with the value given in the IE "PDSCH Identity" stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.
- 1> if the initiation of the procedure is triggered by the IE "Confirm request" set to "Confirm PUSCH" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message:
 - 2> set the CHOICE "Allocation confirmation" to "PUSCH Confirmation" with the value given in the IE "PUSCH Identity" stored in the variable PHYSICAL SHARED CHANNEL CONFIGURATION.
- 1> if the variable PROTOCOL_ERROR_REJECT is set to TRUE:
 - 2> include the IE "RRC transaction identifier" in the response message transmitted below; and
 - 2> set it to the value of "RRC transaction identifier" in the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Rejected transactions" in the variable TRANSACTIONS; and
 - 2> clear that entry;
 - 2> set the IE "protocol error indicator" to TRUE;
 - 2> include the IE "Protocol error information" with contents set to the value of the variable PROTOCOL ERROR INFORMATION.
- 1> if the value of the variable PROTOCOL_ERROR_ REJECT is FALSE:
 - 2> set the IE "Protocol error indicator" to FALSE.

As an option, the message may include IE "Timeslot ISCP" and IE "Primary CCPCH RSCP".

The timeslots for which "Timeslot ISCP" may be reported shall have been configured with a previous PHYSICAL SHARED CHANNEL ALLOCATION message and stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.

"Primary CCPCH RSCP" is reported when requested with a previous PHYSICAL SHARED CHANNEL ALLOCATION message.

8.2.8.4 Reception of a PUSCH CAPACITY REQUEST message by the UTRAN

Upon receiving a PUSCH CAPACITY REQUEST message with traffic volume measurement included for at least one radio bearer, the UTRAN should initiate the PHYSICAL SHARED CHANNEL ALLOCATION procedure, either for allocating PUSCH or PDSCH resources as required, or just as an acknowledgement, indicating a pending PUSCH allocation, as described in subclause 8.2.7.

8.2.8.5 T310 expiry

Upon expiry of timer T310, the UE shall:

- 1> if V310 is smaller than N310:
 - 2> transmit a new PUSCH CAPACITY REQUEST message on the Uplink SHCCH;
 - 2> restart timer T310;
 - 2> increment counter V310;
 - 2> set the IEs in the PUSCH CAPACITY REQUEST message as specified in subclause 8.2.8.3.
- 1> if V310 is greater than or equal to N310:
 - 2> the procedure ends.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19-23 August 2002

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8.2.7 Physical Shared Channel Allocation [TDD only]



Figure 8.2.7-1: Physical Shared Channel Allocation

8.2.7.1 General

The purpose of this procedure is to allocate radio resources to USCH and/or DSCH transport channels in TDD mode, for use by a UE. This procedure can also be used to indicate to the UE, that a PUSCH allocation is pending, in order to prevent further capacity requests from the UE.

UEs are not required to receive FACH and DSCH simultaneously, i.e. if resources are allocated to DSCH the FACH reception may be suspended.

8.2.7.2 Initiation

To initiate the Physical Shared Channel Allocation procedure, the UTRAN sends the "PHYSICAL SHARED CHANNEL ALLOCATION" message on the downlink SHCCH or on the downlink DCCH using UM RLC. The CRNTI-DSCH-RNTI shall be included for UE identification, if the message is sent on the SHCCH.

8.2.7.3 Reception of a PHYSICAL SHARED CHANNEL ALLOCATION message by the UF

Upon reception of a "PHYSICAL SHARED CHANNEL ALLOCATION" message, if the message is received on the downlink SHCCH the UE shall:

- 1> check the DSCH-RNTI to see if the UE is addressed by the message;
- 1> if the UE is addressed by the message, or if the message is received on the downlink DCCH:
 - 2> perform the following actions.
- 1> otherwise:
 - 2> ignore the message.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
- 1> if the IE "ISCP Timeslot list" is included:
 - 2> store the timeslot numbers given there for future Timeslot ISCP measurements and reports in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.
- 1> if the IE "PDSCH capacity allocation info" is included:
 - 2> configure the physical resources used for the downlink CCTrCH given by the IE "TFCS ID" according to the following:
 - 3> if the CHOICE "Configuration" has the value "Old configuration":
 - 4> if the UE has stored a PDSCH configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION with the identity given by the IE "PDSCH Identity":
 - 5> configure the physical resources according to that configuration.

- 4> otherwise:
 - 5> ignore the IE "PDSCH capacity allocation info".
- 3> if the CHOICE "Configuration" has the value "New configuration":
 - 4> configure the physical resources according to the information given in IE "PDSCH Info". If IE "Common timeslot info" or IE "PDSCH timeslots and codes" IE are not present in IE "PDSCH Info":
 - 5> reuse the configuration stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION for this CCTrCH.
 - 4> if the IE "PDSCH Identity" is included:
 - 5> store the new configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION using that identity.
- 2> start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
- 2> if the IE "Confirm request" has the value "Confirm PDSCH" and IE "PDSCH Identity" is included in IE "PDSCH capacity allocation info":
 - 3> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- 2> if the IE "PUSCH capacity allocation info" is included:
- 2> stop the timer T310, if running;
- 2> if the CHOICE "PUSCH allocation" has the value "PUSCH allocation pending":
 - 3> start the timer T311.
- 2> if the CHOICE "PUSCH allocation" has the value "PUSCH allocation assignment":
 - 3> stop the timer T311, if running;
 - 3> configure the physical resources used for the uplink CCTrCH given by the IE "TFCS ID" according to the following:
 - 4> if the CHOICE "Configuration" has the value "Old configuration":
 - 5> if the UE has stored a PUSCH configuration with the identity given by the IE "PUSCH Identity" in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION:
 - 5> configure the physical resources according to that configuration.
 - 5> otherwise:
 - 5> ignore the IE "PUSCH capacity allocation info".
 - 4> if the CHOICE "Configuration" has the value "New configuration", the UE shall:
 - 5> configure the physical resources according to the information given in IE "PUSCH Info". If IE "Common timeslot info" or IE "PUSCH timeslots and codes" is not present in IE "PUSCH Info":
 - 6> reuse the configuration stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION for this CCTrCH.
 - 5> if the IE "PUSCH Identity" is included:
 - 5> store the new configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION using that identity.
 - 3> start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
 - 3> if the IE "Traffic volume report request" is included:

- 4> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8 at the time indicated by the IE "Traffic volume report request".
- 3> if the IE "Confirm request" has the value "Confirm PUSCH" and IE "PUSCH Identity" is included in IE "PUSCH capacity allocation info":
 - 4> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- 1> determine the TFCS subset and hence the TFCI values which are possible given the PUSCH allocation for that CCTrCH;
- 1> configure the MAC-c/sh in the UE with this TFCS restriction if necessary;
- 1> transmit USCH Transport Block Sets as required, within the TFCS limits given by the PUSCH allocation.
- NOTE: If the UE has just entered a new cell and System Information Block Type 6has not yet been scheduled, PUSCH/PDSCH information should be specified in the allocation message.

The UE shall:

- 1> clear the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Accepted transactions" in the variable TRANSACTIONS;
- 1> and the procedure ends.

8.2.7.4 Invalid PHYSICAL SHARED CHANNEL ALLOCATION message

If the UE receives a PHYSICAL SHARED CHANNEL ALLOCATION message, which contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows. The UE shall:

- 1> ignore the invalid PHYSICAL SHARED CHANNEL ALLOCATION message;
- 1> submit the PUSCH CAPACITY REQUEST message for transmission on the uplink SHCCH, setting the information elements in the message as specified in subclause 8.2.8.3;
- 1> reset counter V310;
- 1> start timer T310;
- 1> proceed as described in subclause 8.2.8.

8.2.8 PUSCH capacity request [TDD only]

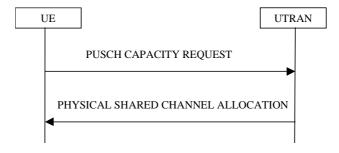


Figure 8.2.8-1: PUSCH Capacity request procedure

8.2.8.1 General

With this procedure, the UE transmits its request for PUSCH resources to the UTRAN. In the normal case, the UTRAN responds with a PHYSICAL SHARED CHANNEL ALLOCATION message, which either allocates the requested PUSCH resources, and/or allocates a PDSCH resource, or may just serve as an acknowledgement, indicating that PUSCH allocation is pending.

This procedure can also be used to acknowledge the reception of a PHYSICAL SHARED CHANNEL ALLOCATION message, or to indicate a protocol error in that message.

With the PUSCH CAPACITY REQUEST message, the UE can request capacity for one or more USCH.

8.2.8.2 Initiation

This procedure is initiated:

- 1> in the CELL_FACH or CELL_DCH state;
- 1> and when at least one RB using USCH has been established;
- 1> and when the UE sees the requirement to request physical resources (PUSCH) for an USCH channel or there is the need to reply to a PHYSICAL SHARED CHANNEL ALLOCATION message as described in clause 8.2.7 (i.e. to confirm the reception of a message, if requested to do so, or to indicate a protocol error).

The procedure can be initiated if:

- Timer T311 is not running.
- The timer T310 (capacity request repetition timer) is not running.

The UE shall:

- 1> set the IEs in the PUSCH CAPACITY REQUEST message according to subclause 8.2.8.3;
- 1> if the procedure is triggered to reply to a previous PHYSICAL SHARED CHANNEL ALLOCATION message by the IE "Confirm request" set to "Confirm PUSCH" and the IE "PUSCH capacity allocation info" is not present:
 - 2> transmit the PUSCH CAPACITY REQUEST message on RACH.
- 1> else:
 - 2> transmit the PUSCH CAPACITY REQUEST message on the uplink SHCCH.
- 1> set counter V310 to 1;
- 1> start timer T310.

8.2.8.3 PUSCH CAPACITY REQUEST message contents to set

With one PUSCH CAPACITY REQUEST message, capacity for one or more USCH can be requested. It shall include these information elements:

- 1> C-RNTI-DSCH-RNTI to be used as UE identity if the message is sent on RACH;
- 1> Traffic volume measured results for each radio bearer satisfying the reporting criteria as specified in the MEASUREMENT CONTROL procedure (if no radio bearer satisfies the reporting criteria, traffic volume measured results shall not be included). These results shall include:
 - 2> Radio Bearer ID of the Radio Bearer being reported;
 - 2> RLC buffer payload for these radio bearers, as specified by the MEASUREMENT CONTROL procedure.

The UE shall:

- 1> if the initiation of the procedure is triggered by the IE "Traffic volume report request" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message:
 - 2> report the traffic volume measurement result for the radio bearer mapped on USCH transport channel specified in the received message. These results shall include:
 - 3> Radio Bearer ID of the Radio Bearer being reported;

- 3> RLC buffer payload for this radio bearer.
- 1> if the initiation of the procedure is triggered by the IE "Confirm request" set to "Confirm PDSCH" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message and the IE "PUSCH capacity allocation info" is present in this message:
 - 2> set the CHOICE "Allocation confirmation" to "PDSCH Confirmation" with the value given in the IE "PDSCH Identity" stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.
- 1> if the initiation of the procedure is triggered by the IE "Confirm request" set to "Confirm PUSCH" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message:
 - 2> set the CHOICE "Allocation confirmation" to "PUSCH Confirmation" with the value given in the IE "PUSCH Identity" stored in the variable PHYSICAL SHARED CHANNEL CONFIGURATION.
- 1> if the variable PROTOCOL_ERROR_REJECT is set to TRUE:
 - 2> include the IE "RRC transaction identifier" in the response message transmitted below; and
 - 2> set it to the value of "RRC transaction identifier" in the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Rejected transactions" in the variable TRANSACTIONS; and
 - 2> clear that entry;
 - 2> set the IE "protocol error indicator" to TRUE;
 - 2> include the IE "Protocol error information" with contents set to the value of the variable PROTOCOL ERROR INFORMATION.
- 1> if the value of the variable PROTOCOL_ERROR_ REJECT is FALSE:
 - 2> set the IE "Protocol error indicator" to FALSE.

As an option, the message may include IE "Timeslot ISCP" and IE "Primary CCPCH RSCP".

The timeslots for which "Timeslot ISCP" may be reported shall have been configured with a previous PHYSICAL SHARED CHANNEL ALLOCATION message and stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.

"Primary CCPCH RSCP" is reported when requested with a previous PHYSICAL SHARED CHANNEL ALLOCATION message.

8.2.8.4 Reception of a PUSCH CAPACITY REQUEST message by the UTRAN

Upon receiving a PUSCH CAPACITY REQUEST message with traffic volume measurement included for at least one radio bearer, the UTRAN should initiate the PHYSICAL SHARED CHANNEL ALLOCATION procedure, either for allocating PUSCH or PDSCH resources as required, or just as an acknowledgement, indicating a pending PUSCH allocation, as described in subclause 8.2.7.

8.2.8.5 T310 expiry

Upon expiry of timer T310, the UE shall:

- 1> if V310 is smaller than N310:
 - 2> transmit a new PUSCH CAPACITY REQUEST message on the Uplink SHCCH;
 - 2> restart timer T310;
 - 2> increment counter V310;
 - 2> set the IEs in the PUSCH CAPACITY REQUEST message as specified in subclause 8.2.8.3.
- 1> if V310 is greater than or equal to N310:
 - 2> the procedure ends.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19-23 August 2002

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How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.2.7 Physical Shared Channel Allocation [TDD only]



Figure 8.2.7-1: Physical Shared Channel Allocation

8.2.7.1 General

The purpose of this procedure is to allocate radio resources to USCH and/or DSCH transport channels in TDD mode, for use by a UE. This procedure can also be used to indicate to the UE, that a PUSCH allocation is pending, in order to prevent further capacity requests from the UE.

UEs are not required to receive FACH and DSCH simultaneously, i.e. if resources are allocated to DSCH the FACH reception may be suspended.

8.2.7.2 Initiation

To initiate the Physical Shared Channel Allocation procedure, the UTRAN sends the "PHYSICAL SHARED CHANNEL ALLOCATION" message on the downlink SHCCH or on the downlink DCCH using UM RLC. The CRNTL DSCH-RNTI shall be included for UE identification, if the message is sent on the SHCCH.

8.2.7.3 Reception of a PHYSICAL SHARED CHANNEL ALLOCATION message by the UF

Upon reception of a "PHYSICAL SHARED CHANNEL ALLOCATION" message, if the message is received on the downlink SHCCH the UE shall:

- 1> check the DSCH-RNTI to see if the UE is addressed by the message;
- 1> if the UE is addressed by the message, or if the message is received on the downlink DCCH:
 - 2> perform the following actions.
- 1> otherwise:
 - 2> ignore the message.
- 1> act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
- 1> if the IE "ISCP Timeslot list" is included:
 - 2> store the timeslot numbers given there for future Timeslot ISCP measurements and reports in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.
- 1> if the IE "PDSCH capacity allocation info" is included:
 - 2> configure the physical resources used for the downlink CCTrCH given by the IE "TFCS ID" according to the following:
 - 3> if the CHOICE "Configuration" has the value "Old configuration":
 - 4> if the UE has stored a PDSCH configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION with the identity given by the IE "PDSCH Identity":
 - 5> configure the physical resources according to that configuration.

- 4> otherwise:
 - 5> ignore the IE "PDSCH capacity allocation info".
- 3> if the CHOICE "Configuration" has the value "New configuration":
 - 4> configure the physical resources according to the information given in IE "PDSCH Info". If IE "Common timeslot info" or IE "PDSCH timeslots and codes" IE are not present in IE "PDSCH Info":
 - 5> reuse the configuration stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION for this CCTrCH.
 - 4> if the IE "PDSCH Identity" is included:
 - 5> store the new configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION using that identity.
- 2> start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
- 2> if the IE "Confirm request" has the value "Confirm PDSCH" and IE "PDSCH Identity" is included in IE "PDSCH capacity allocation info":
 - 3> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- 2> if the IE "PUSCH capacity allocation info" is included:
- 2> stop the timer T310, if running;
- 2> if the CHOICE "PUSCH allocation" has the value "PUSCH allocation pending":
 - 3> start the timer T311.
- 2> if the CHOICE "PUSCH allocation" has the value "PUSCH allocation assignment":
 - 3> stop the timer T311, if running;
 - 3> configure the physical resources used for the uplink CCTrCH given by the IE "TFCS ID" according to the following:
 - 4> if the CHOICE "Configuration" has the value "Old configuration":
 - 5> if the UE has stored a PUSCH configuration with the identity given by the IE "PUSCH Identity" in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION:
 - 5> configure the physical resources according to that configuration.
 - 5> otherwise:
 - 5> ignore the IE "PUSCH capacity allocation info".
 - 4> if the CHOICE "Configuration" has the value "New configuration", the UE shall:
 - 5> configure the physical resources according to the information given in IE "PUSCH Info". If IE "Common timeslot info" or IE "PUSCH timeslots and codes" is not present in IE "PUSCH Info":
 - 6> reuse the configuration stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION for this CCTrCH.
 - 5> if the IE "PUSCH Identity" is included:
 - 5> store the new configuration in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION using that identity.
 - 3> start using the new configuration at the CFN specified by the IE "Allocation activation time", and use that for the duration given by the IE "Allocation duration";
 - 3> if the IE "Traffic volume report request" is included:

- 4> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8 at the time indicated by the IE "Traffic volume report request".
- 3> if the IE "Confirm request" has the value "Confirm PUSCH" and IE "PUSCH Identity" is included in IE "PUSCH capacity allocation info":
 - 4> initiate the PUSCH CAPACITY REQUEST procedure as described in subclause 8.2.8.
- 1> determine the TFCS subset and hence the TFCI values which are possible given the PUSCH allocation for that CCTrCH:
- 1> configure the MAC-c/sh in the UE with this TFCS restriction if necessary;
- 1> transmit USCH Transport Block Sets as required, within the TFCS limits given by the PUSCH allocation.
- NOTE: If the UE has just entered a new cell and System Information Block Type 6has not yet been scheduled, PUSCH/PDSCH information should be specified in the allocation message.

The UE shall:

- 1> clear the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Accepted transactions" in the variable TRANSACTIONS;
- 1> and the procedure ends.

8.2.7.4 Invalid PHYSICAL SHARED CHANNEL ALLOCATION message

If the UE receives a PHYSICAL SHARED CHANNEL ALLOCATION message, which contains a protocol error causing the variable PROTOCOL_ERROR_REJECT to be set to TRUE according to clause 9, the UE shall perform procedure specific error handling as follows. The UE shall:

- 1> ignore the invalid PHYSICAL SHARED CHANNEL ALLOCATION message;
- 1> submit the PUSCH CAPACITY REQUEST message for transmission on the uplink SHCCH, setting the information elements in the message as specified in subclause 8.2.8.3;
- 1> reset counter V310;
- 1> start timer T310;
- 1> proceed as described in subclause 8.2.8.

8.2.8 PUSCH capacity request [TDD only]

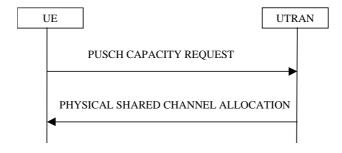


Figure 8.2.8-1: PUSCH Capacity request procedure

8.2.8.1 General

With this procedure, the UE transmits its request for PUSCH resources to the UTRAN. In the normal case, the UTRAN responds with a PHYSICAL SHARED CHANNEL ALLOCATION message, which either allocates the requested PUSCH resources, and/or allocates a PDSCH resource, or may just serve as an acknowledgement, indicating that PUSCH allocation is pending.

This procedure can also be used to acknowledge the reception of a PHYSICAL SHARED CHANNEL ALLOCATION message, or to indicate a protocol error in that message.

With the PUSCH CAPACITY REQUEST message, the UE can request capacity for one or more USCH.

8.2.8.2 Initiation

This procedure is initiated:

- 1> in the CELL_FACH or CELL_DCH state;
- 1> and when at least one RB using USCH has been established;
- 1> and when the UE sees the requirement to request physical resources (PUSCH) for an USCH channel or there is the need to reply to a PHYSICAL SHARED CHANNEL ALLOCATION message as described in clause 8.2.7 (i.e. to confirm the reception of a message, if requested to do so, or to indicate a protocol error).

The procedure can be initiated if:

- Timer T311 is not running.
- The timer T310 (capacity request repetition timer) is not running.

The UE shall:

- 1> set the IEs in the PUSCH CAPACITY REQUEST message according to subclause 8.2.8.3;
- 1> if the procedure is triggered to reply to a previous PHYSICAL SHARED CHANNEL ALLOCATION message by the IE "Confirm request" set to "Confirm PUSCH" and the IE "PUSCH capacity allocation info" is not present:
 - 2> transmit the PUSCH CAPACITY REQUEST message on RACH.
- 1> else:
 - 2> transmit the PUSCH CAPACITY REQUEST message on the uplink SHCCH.
- 1> set counter V310 to 1;
- 1> start timer T310.

8.2.8.3 PUSCH CAPACITY REQUEST message contents to set

With one PUSCH CAPACITY REQUEST message, capacity for one or more USCH can be requested. It shall include these information elements:

- 1> C-RNTI-DSCH-RNTI to be used as UE identity if the message is sent on RACH;
- 1> Traffic volume measured results for each radio bearer satisfying the reporting criteria as specified in the MEASUREMENT CONTROL procedure (if no radio bearer satisfies the reporting criteria, traffic volume measured results shall not be included). These results shall include:
 - 2> Radio Bearer ID of the Radio Bearer being reported;
 - 2> RLC buffer payload for these radio bearers, as specified by the MEASUREMENT CONTROL procedure.

The UE shall:

- 1> if the initiation of the procedure is triggered by the IE "Traffic volume report request" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message:
 - 2> report the traffic volume measurement result for the radio bearer mapped on USCH transport channel specified in the received message. These results shall include:
 - 3> Radio Bearer ID of the Radio Bearer being reported;

- 3> RLC buffer payload for this radio bearer.
- 1> if the initiation of the procedure is triggered by the IE "Confirm request" set to "Confirm PDSCH" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message and the IE "PUSCH capacity allocation info" is present in this message:
 - 2> set the CHOICE "Allocation confirmation" to "PDSCH Confirmation" with the value given in the IE "PDSCH Identity" stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.
- 1> if the initiation of the procedure is triggered by the IE "Confirm request" set to "Confirm PUSCH" in a previously received PHYSICAL SHARED CHANNEL ALLOCATION message:
 - 2> set the CHOICE "Allocation confirmation" to "PUSCH Confirmation" with the value given in the IE "PUSCH Identity" stored in the variable PHYSICAL SHARED CHANNEL CONFIGURATION.
- 1> if the variable PROTOCOL_ERROR_REJECT is set to TRUE:
 - 2> include the IE "RRC transaction identifier" in the response message transmitted below; and
 - 2> set it to the value of "RRC transaction identifier" in the entry for the PHYSICAL SHARED CHANNEL ALLOCATION message in the table "Rejected transactions" in the variable TRANSACTIONS; and
 - 2> clear that entry;
 - 2> set the IE "protocol error indicator" to TRUE;
 - 2> include the IE "Protocol error information" with contents set to the value of the variable PROTOCOL ERROR INFORMATION.
- 1> if the value of the variable PROTOCOL_ERROR_ REJECT is FALSE:
 - 2> set the IE "Protocol error indicator" to FALSE.

As an option, the message may include IE "Timeslot ISCP" and IE "Primary CCPCH RSCP".

The timeslots for which "Timeslot ISCP" may be reported shall have been configured with a previous PHYSICAL SHARED CHANNEL ALLOCATION message and stored in the variable PHYSICAL_SHARED_CHANNEL_CONFIGURATION.

"Primary CCPCH RSCP" is reported when requested with a previous PHYSICAL SHARED CHANNEL ALLOCATION message.

8.2.8.4 Reception of a PUSCH CAPACITY REQUEST message by the UTRAN

Upon receiving a PUSCH CAPACITY REQUEST message with traffic volume measurement included for at least one radio bearer, the UTRAN should initiate the PHYSICAL SHARED CHANNEL ALLOCATION procedure, either for allocating PUSCH or PDSCH resources as required, or just as an acknowledgement, indicating a pending PUSCH allocation, as described in subclause 8.2.7.

8.2.8.5 T310 expiry

Upon expiry of timer T310, the UE shall:

- 1> if V310 is smaller than N310:
 - 2> transmit a new PUSCH CAPACITY REQUEST message on the Uplink SHCCH;
 - 2> restart timer T310;
 - 2> increment counter V310;
 - 2> set the IEs in the PUSCH CAPACITY REQUEST message as specified in subclause 8.2.8.3.
- 1> if V310 is greater than or equal to N310:
 - 2> the procedure ends.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19-23 August 2002

		CHANG	E REQ	UEST		-Form-v7
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#	25.331 CR 1606						
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the # symbols.							
Proposed change a	ME X Radio Access Network X Core Network						
Title: 第	Correction to allowed logical channel list choice for RACH transport channels						
Source: #	TSG-RAN WG2						
Work item code: ₩	TEI Date: # 13/08/2002						
Category: 第							
	Use <u>one</u> of the following categories: Use <u>one</u> of the following releases: (GSM Phase 2)						
	A (corresponds to a correction in an earlier release) R96 (Release 1996) B (addition of feature), R97 (Release 1997)						
	C (functional modification of feature)R98 (Release 1998)D (editorial modification)R99 (Release 1999)						
	Detailed explanations of the above categories can Rel-4 (Release 4) Detailed explanations of the above categories can Rel-5 (Release 5)						
	Rel-6 (Release 6)						
Reason for change:	Currently the procedural text in 8.6.5.1 and the semantic text in 10.3.5.23 allows						
3	the logical channel list choice "All" for RACH transport channels. However, "Configured" should be the only allowed choice.						
	Also for RB mapping there is no rule in 8.6.4.8 which specifies "Explicit list" should be the only valid choice for the RLC size list.						
	Additionally text is added to 8.6.4.8 in order that the rules which only exist in 10.3.4.21 (that "Explicit list" is the only option for "RLC size list")						
Summary of change	In section 8.6.5.1 the RACH transport format set "All" is added to the case where the system information blocks should be ignored by the UE.						
	Additionally text is added to 8.6.4.8 in order that the rules which only exist in 10.3.4.21 (that "Explicit list" is the only option for "RLC size list")						
	Finally semantic description of these rules are removed from 10.3.4.21 and 10.3.5.23 as they are now covered in 8.6.5.1 and 8.6.4.8.						
Consequences if	# Erroneous definitions of mapping of RACH transport channels to logical channels						
not approved:	would be possible in system information.						
	Impact analysis: Functionality corrected: RB mapping of RACH transport channels						
	Isolated impact statement: Correction to a function where specification was missing procedural text or rules. Would not affect implementations behaving like						

indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

The behaviour if either UE or UTRAN or both did not implement the CR then it would be possible to have erroneous definitions of RB mappings for RACH transport channels which the UE could not identify.

Clauses affected:	# 8.6.4.8, 8.6.5.1, 10.2.4.21 and 10.3.5.23
Other specs Affected:	Y N X Other core specifications Test specifications O&M Specifications
Other comments:	x

How to create CRs using this form:

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.4.8 RB mapping info

If the IE "RB mapping info" is included, the UE shall:

- 1> for each multiplexing option of the RB:
 - 2> if a transport channel that would not exist as a result of the message (i.e. removed in the same message in IE "Deleted DL TrCH information" and IE "Deleted UL TrCH information") is referred to:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if a multiplexing option that maps a logical channel corresponding to a TM-RLC entity onto RACH, CPCH, FACH or DSCH is included:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if the multiplexing option realises the radio bearer on the uplink (resp. on the downlink) using two logical channels with different values of the IE "Uplink transport channel type" (resp. of the IE "Downlink transport channel type"):
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if that RB is using TM and the IE "Segmentation indication" is set to TRUE and, based on the multiplexing configuration resulting from this message, the logical channel corresponding to it is mapped onto the same transport channel as another logical channel:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if the transport channel considered in that multiplexing option is different from RACH and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if that RB is using UM or TM and the multiplexing option realises it using two logical channels:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> for each logical channel in that multiplexing option:
 - 3> if the value of the IE "RLC size list" is set to "Explicit list":
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the IE transport format set of that transport channel given in the message; or
 - 4> if the transport channel this logical channel is mapped on in this multiplexing option is different from RACH, and if a "Transport format set" for that transport channel is not included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the stored transport format set of that transport channel; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":
 - 5> set the variable INVALID_CONFIGURATION to TRUE.

- 3> if the value of the IE "RLC size list" is set to "All":
 - 4> if the transport channel this logical channel is mapped on is RACH; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":
 - 5> set the variable INVALID CONFIGURATION to TRUE.
- 3> if the value of the IE "RLC size list" is set to "Configured":
 - 4> if the transport channel this logical channel is mapped on is RACH; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and for none of the RLC sizes defined for that transport channel in the "Transport format set", the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and for none of the RLC sizes defined in the transport format set stored for that transport channel, the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel:
 - 5> set the variable INVALID CONFIGURATION to TRUE.
- 1> if, as a result of the message this IE is included in, several radio bearers can be mapped onto the same transport channel, and the IE "Logical Channel Identity" was not included in the RB mapping info of any of those radio bearers for a multiplexing option on that transport channel or the same "Logical Channel Identity" was used more than once in the RB mapping info of those radio bearers for the multiplexing options on that transport channel:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> delete all previously stored multiplexing options for that radio bearer;
- 1> store each new multiplexing option for that radio bearer;
- 1> if the IE "Uplink transport channel type" is set to the value "RACH":
 - 2> refer the IE "RLC size index" to the RACH Transport Format Set of the first PRACH received in the IE "PRACH system information list" received in SIB5 or SIB6.
- 1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if none were received); and
- 1> in case the selected multiplexing option is a multiplexing option on RACH:
 - 2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.
- 1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:
 - 2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.
- NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.

- 1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:
 - 2> re-establish the corresponding RLC entity;
 - 2> configure the corresponding RLC entity with the new RLC size;
 - 2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and
 - 2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:
 - 3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 4> if this IE was included in CELL UPDATE CONFIRM:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.
 - 4> if this IE was included in a reconfiguration message:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.
- 1> if that RB is using UM:
 - 2> indicate the largest applicable RLC size to the corresponding RLC entity.
- 1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);
- 1> configure the MAC with the logical channel priorities according to selected multiplexing option;
- 1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;
- 1> if there is no multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:
 - 2> set the variable INVALID CONFIGURATION to TRUE.
- 1> if there is more than one multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.

In case IE "RLC info" includes IE "Downlink RLC mode " ("DL RLC logical channel info" is mandatory present) but IE "Number of downlink RLC logical channels" is absent in the corresponding IE "RB mapping info", the parameter values are exactly the same as for the corresponding UL logical channels. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards the IE "Channel type", the following rule should be applied to derive the DL channel type from the UL channel included in the IE:

DL channel type implied by "same as"
DCH
FACH
FACH
DSCH

8.6.5.1 Transport Format Set

If the IE "Transport format set" is included, the UE shall:

- 1> if the transport format set is a RACH TFS received in System Information Block type 5 or 6, and CHOICE "Logical Channel List" has-a value different from "Configured" the value "Explicit List":
 - 2> ignore that System Information Block.
- 1> if the transport format set for a downlink transport channel is received in a System Information Block, and CHOICE "Logical Channel List" has a value different from 'ALL':
 - 2> ignore that System Information Block.
- 1> if the transport format set for a downlink transport channel is received in a message on a DCCH, and CHOICE "Logical Channel List" has a value different from 'ALL':
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the value of any IE "RB identity" (and "Logical Channel" for RBs using two UL logical channels) in the IE "Logical channel list" does not correspond to a logical channel indicated to be mapped onto this transport channel in any RB multiplexing option (either included in the same message or previously stored and not changed by this message); or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "Configured" while it is set to "All" or given as an "Explicit List" for any other RLC size; or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "All" and for any logical channel mapped to this transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is given as an "Explicit List" that contains a logical channel for which the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or
- 1> if the "Logical Channel List" for all the RLC sizes defined for that transport channel are given as "Explicit List" and if one of the logical channels mapped onto this transport channel is not included in any of those lists; or
- 1> if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is also set to "Configured"; or
- 1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list" and if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is given as an "Explicit List" that includes an "RLC size index" that does not correspond to any RLC size in this "Transport Format Set":
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the total number of configured transport formats for the transport channel exceeds maxTF:
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the IE "Transport format set" is considered as valid according to the rules above:
 - 2> remove a previously stored transport format set if this exists for that transport channel;
 - 2> store the transport format set for that transport channel;
 - 2> consider the first instance of the parameter *Number of TBs and TTI List* within the *Dynamic transport format information* to correspond to transport format 0 for this transport channel, the second to transport format 1 and so on;
 - 2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Dedicated transport channel":

3> calculate the transport block size for all transport formats in the TFS using the following

TB size = RLC size + MAC header size,

where:

- MAC header size is calculated according to [15] if MAC multiplexing is used. Otherwise it is 0 bits;
- 'RLC size' reflects the RLC PDU size.
- 2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Common transport channel":
 - 3> calculate the transport block size for all transport formats in the TFS using the following:

$$TB size = RLC size.$$

- 2> if the IE "Number of Transport blocks" <> 0 and IE "RLC size" = 0, no RLC PDU data exists but only parity bits exist for that transport format;
- 2> if the IE "Number of Transport blocks" = 0, neither RLC PDU neither data nor parity bits exist for that transport format;
- 2> configure the MAC with the new transport format set (with computed transport block sizes) for that transport channel;
- 2> if the RB multiplexing option for a RB mapped onto that transport channel (based on the stored RB multiplexing option) is not modified by this message:
 - 3> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IE "Logical Channel List" and/or the IE "RLC Size List" from the previously stored RB multiplexing option.
 - 3> if the IE "Transport Format Set" was received within the IE "PRACH system information list":
 - 4> ignore the RLC size indexes in the stored RB multiplexing option that do not correspond to any RLC size in the received Transport Format Set.
 - 3> if the IE "Transport Format Set" was received within the IE "PRACH system information list", if that RB is using AM and if RACH is the transport channel to be used on the uplink:
 - 4> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.
 - 3> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:
 - 4> set the variable INVALID_CONFIGURATION to true.
 - 3> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:
 - 4> re-establish the corresponding RLC entity;
 - 4> configure the corresponding RLC entity with the new RLC size;
 - 4> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and
 - 4> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:
 - 5> if this IE was included in system information and if the IE "Status" in variable CIPHERING STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message that will be sent before the next transmission.

- 5> if this IE was included in CELL UPDATE CONFIRM and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.
- 5> if this IE was included in a reconfiguration message and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.
- 5> if this IE was included in ACTIVE SET UPDATE and if the IE "Status" in the variable CIPHERING STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the ACTIVE SET UPDATE COMPLETE message for this CN domain.
- 3> if that RB is using UM:
 - 4> indicate the largest applicable RLC size to the corresponding RLC entity.
- 3> configure MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB.

For configuration restrictions on Blind Transport Format Detection, see [27].

10.3.4.21 RB mapping info

A multiplexing option for each possible transport channel this RB can be multiplexed on.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Information for each multiplexing option	MP	1 to <maxrbm uxOptions></maxrbm 		
>RLC logical channel mapping indicator	CV-UL- RLCLogica IChannels		Boolean	TRUE indicates that the first logical channel shall be used for data PDUs and the second logical channel shall be used for control PDUs. FALSE indicates that control and data PDUs can be sent on either of the two logical channels. This parameter is not used in this release and shall be set to TRUE.
>Number of uplink RLC logical channels	CV-UL- RLC info	1 to MaxLoCHp erRLC		1 or 2 logical channels per RLC entity or radio bearer RLC [16]
>>Uplink transport channel type	MP		Enumerated(DCH,RACH, CPCH,USC H)	CPCH is FDD only USCH is TDD only
>>ULTransport channel identity	CV-UL- DCH/USC H		Transport channel identity 10.3.5.18	This is the ID of a DCH or USCH (TDD only) that this RB could be mapped onto.
>>Logical channel identity	OP		Integer(115	This parameter is used to

Information Element/Group name	Need	Multi	Type and reference	Semantics description
)	distinguish logical channels multiplexed by MAC on a transport channel.
>>CHOICE RLC size list	MP			The RLC sizes that are allowed for this logical channel For radio bearers mapped to RACH, "Explicit list" is the only valid choice. The UE shall regard all other choices as undefined IE values and handle these as specified in clause 9.
>>>All			Null	All RLC sizes listed in the Transport Format Set. 10.3.5.23
>>>Configured			Null	The RLC sizes configured for this logical channel in the <i>Transport Format Set</i> . 10.3.5.23 if present in this message or in the previously stored configuration otherwise
>>>Explicit List		1 to <maxtf></maxtf>		Lists the RLC sizes that are valid for the logical channel.
>>>RLC size index	MP		Integer(1m axTF)	The integer number is a reference to the <i>RLC size</i> which arrived at that position in the <i>Transport Format Set</i> 10.3.5.23
>>MAC logical channel priority	MP		Integer(18)	This is priority between a user's different RBs (or logical channels). [15]
>Downlink RLC logical channel info	CV-DL- RLC info			
>>Number of downlink RLC logical channels	MD	1 to MaxLoCHp erRLC		1 or 2 logical channels per RLC entity or radio bearer RLC [16] Default value is that parameter values for DL are exactly the same as for corresponding UL logical channel. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards to the IE "Channel type", rule is specified in 8.6.4.8.
>>>Downlink transport channel type	MP		Enumerated(DCH,FACH, DSCH,DCH+ DSCH)	
>>>DL DCH Transport channel identity	CV-DL- DCH		Transport channel identity 10.3.5.18	
>>>DL DSCH Transport channel identity	CV-DL- DSCH		Transport channel identity 10.3.5.18	
>>>Logical channel identity	OP		Integer(115	16 is reserved

Condition	Explanation
UL-RLC info	If "CHOICE Uplink RLC mode" in the IE "RLC info"
	that applies for that RB (i.e. either the one stored or
	received in the same message for the RB for which

	the "RB mapping info" was received, or the one stored or received in the same message for the RB pointed at in the IE "Same as RB" in the IE "RB information to setup" stored or received in the same message) is present this IE is mandatory present. Otherwise the IE is not needed.
DL-RLC info	If "CHOICE Downlink RLC mode" in the IE "RLC info" that applies for that RB (i.e. either the one stored or received in the same message for the RB for which the "RB mapping info" was received, or the one stored or received in the same message for the RB pointed at in the IE "Same as RB" in the IE "RB information to setup" stored or received in the same message) is present this IE is mandatory present. Otherwise the IE is not needed.
UL-RLCLogicalChannels	If "Number of uplink RLC logical channels" in IE "RB mapping info" is 2, then this IE is mandatory present. Otherwise this IE is not needed.
UL-DCH/USCH	If IE "Uplink transport channel type" is equal to "DCH" or "USCH" (TDD only) this IE is mandatory present. Otherwise the IE is not needed.
DL-DCH	If IE "Downlink transport channel type" is equal to "DCH" or "DCH+DSCH" this IE is mandatory present. Otherwise the IE is not needed.
DL-DSCH	If IE "Downlink transport channel type" is equal to "DSCH" or "DCH+DSCH" this IE is mandatory present. Otherwise the IE is not needed.

10.3.5.23 Transport Format Set

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE Transport channel type	MP			
>Dedicated transport channels				The transport channel that is configured with this TFS is of type DCH
>>Dynamic Transport Format Information	MP	1 to <maxtf></maxtf>		
>>>RLC Size	MP		Integer(049 92)	Unit is bits
>>>Number of TBs and TTI List	MP	1 to <maxtf></maxtf>		Present for every valid number of TB's (and TTI) for this RLC Size.
>>>Transmission Time Interval	CV- dynamicTT I		Integer(10,2 0,40,80)	Unit is ms.
>>>Number of Transport blocks	MP		Integer(051 2)	
>>>CHOICE Logical Channel List	MP			The logical channels that are allowed to use this RLC Size
>>>ALL			Null	All logical channels mapped to this transport channel.
>>>>Configured			Null	The logical channels configured to use this RLC size in the <i>RB mapping info</i> . 10.3.4.21 if present in this

Information Element/Group name	Need	Multi	Type and reference	Semantics description
				message or in the previously stored configuration otherwise
>>>Explicit List		1 to 15		Lists the logical channels that are allowed to use this RLC size.
>>>>RB Identity	MP		RB identity 10.3.4.16	
>>>>LogicalChannel	CH-UL- RLCLogica IChannels		Integer(01)	Indicates the relevant UL logical channel for this RB. "0" corresponds to the first, "1" corresponds to the second UL logical channel configured for this RB in the IE "RB mapping info".
>>Semi-static Transport Format Information	MP		Semi-static Transport Format Information 10.3.5.11	
>Common transport channels				The transport channel that is configured with this TFS is of a type not equal to DCH
>>Dynamic Transport Format Information	MP	1 to <maxtf></maxtf>		Note
>>>RLC Size	MP		Integer(049 92)	Unit is bits
>>>Number of TBs and TTI List	MP	1 to <maxtf></maxtf>		Present for every valid number of TB's (and TTI) for this RLC Size.
>>>Number of Transport blocks	MP		Integer(051 2)	
>>>>CHOICE mode	MP			
>>>>FDD				(no data)
>>>>TDD >>>>>Transmission Time Interval	CV- dynamicTT		Integer(10,2 0,40,80)	Unit is ms.
>>>CHOICE Logical Channel List	MP			The logical channels that are allowed to use this RLC Size. For radio bearers mapped to RACH, the UE shall regard "Explicit list" as an undefined IE value and handle these as specified in clause 9.
>>>ALL			Null	All logical channels mapped to this transport channel.
>>>>Configured			Null	The logical channels configured to use this RLC size in the <i>RB mapping info</i> . 10.3.4.21 if present in this message or in the previously stored configuration otherwise
>>>Explicit List		1 to 15		Lists the logical channels that are allowed to use this RLC size.
>>>>RB Identity	MP		RB identity 10.3.4.16	
>>>>LogicalChannel	CV-UL- RLCLogica IChannels		Integer(01)	Indicates the relevant UL logical channel for this RB. "0" corresponds to the first, "1" corresponds to the second UL logical channel configured for this RB in the IE "RB mapping info".

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
>>Semi-static Transport Format	MP		Semi-static	
Information			Transport	
			Format	
			Information	
			10.3.5.11	

Condition	Explanation
dynamicTTI	This IE is mandatory present if dynamic TTI usage is indicated in IE Transmission Time Interval in Semistatic Transport Format Information. Otherwise it is not needed.
UL-RLCLogicalChannels	If "Number of uplink RLC logical channels" in IE "RB mapping info" in this message is 2 or the IE "RB mapping info" is not present in this message and 2 UL logical channels are configured for this RB, then this IE is mandatory present. Otherwise this IE is not needed.

NOTE: The parameter "rate matching attribute" is in line with the RAN WG1 specifications. However, it is not currently in line with the description in [34].

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19-23 August 2002

		CHANG	E REQ	UES ⁻	Γ		CR-Form-v7
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* 25	.331 CR 1607	#rev - [#]	Current version	1: 4.5.0 #
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		_	_	_
Proposed change affec	<i>ts:</i> UICC apps ₩	ME A Radio	Access Network _	X Core Network
Title: 第 Co	rrection to allowed logical o	channel list choice	for RACH transpo	ort channels
Source: # TS	G-RAN WG2			
Work item code:			Date:	13/08/2002
Deta	one of the following categorie F (correction) A (corresponds to a correction B (addition of feature), C (functional modification of peditorial modification) iled explanations of the above bund in 3GPP TR 21.900.	on in an earlier relea feature)	Use <u>one</u> of the 2 (G- se) R96 (Re R97 (Re R98 (Re R99 (Re Rel-4 (Re Rel-5 (Re	Rel-4 e following releases: SM Phase 2) elease 1996) elease 1997) elease 1998) elease 1999) elease 4) elease 5) elease 6)
			`	,
Reason for change: #	Currently the procedural the logical channel list ch "Configured" should be the Also for RB mapping the should be the only valid of Additionally text is added 10.3.4.21 (that "Explicit li	noice "All" for RACI ne only allowed ch re is no rule in 8.6. choice for the RLC	H transport chann oice. 4.8 which specific size list. r that the rules wh	nels. However, es "Explicit list" nich only exist in
Summary of change: #	In section 8.6.5.1 the RA the system information be Additionally text is added 10.3.4.21 (that "Explicit li	locks should be ignored to 8.6.4.8 in orderst" is the only option	nored by the UE. r that the rules wh on for "RLC size li	nich only exist in ist")
	Finally semantic descript 10.3.5.23 as they are not	w covered in 8.6.5	.1 and 8.6.4.8.	
Consequences if # not approved:	Erroneous definitions of a would be possible in syst Impact analysis:		transport channe	ls to logical channels
	Functionality corrected :	RB mapping of RA	ACH transport cha	annels
	Isolated impact statemen missing procedural text of			

indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

The behaviour if either UE or UTRAN or both did not implement the CR then it would be possible to have erroneous definitions of RB mappings for RACH transport channels which the UE could not identify.

Clauses affected:	# 8.6.4.8, 8.6.5.1, 10.2.4.21 and 10.3.5.23
Other specs Affected:	Y N X Other core specifications Test specifications O&M Specifications
Other comments:	x

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.4.8 RB mapping info

If the IE "RB mapping info" is included, the UE shall:

- 1> for each multiplexing option of the RB:
 - 2> if a transport channel that would not exist as a result of the message (i.e. removed in the same message in IE "Deleted DL TrCH information" and IE "Deleted UL TrCH information") is referred to:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if a multiplexing option that maps a logical channel corresponding to a TM-RLC entity onto RACH, CPCH, FACH or DSCH is included:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if the multiplexing option realises the radio bearer on the uplink (resp. on the downlink) using two logical channels with different values of the IE "Uplink transport channel type" (resp. of the IE "Downlink transport channel type"):
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if that RB is using TM and the IE "Segmentation indication" is set to TRUE and, based on the multiplexing configuration resulting from this message, the logical channel corresponding to it is mapped onto the same transport channel as another logical channel:
 - 3> set the variable INVALID CONFIGURATION to TRUE.
 - 2> if the transport channel considered in that multiplexing option is different from RACH and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if that RB is using UM or TM and the multiplexing option realises it using two logical channels:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> for each logical channel in that multiplexing option:
 - 3> if the value of the IE "RLC size list" is set to "Explicit list":
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the IE transport format set of that transport channel given in the message; or
 - 4> if the transport channel this logical channel is mapped on in this multiplexing option is different from RACH, and if a "Transport format set" for that transport channel is not included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the stored transport format set of that transport channel; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":
 - 5> set the variable INVALID_CONFIGURATION to TRUE.
 - 3> if the value of the IE "RLC size list" is set to "All":
 - 4> if the transport channel this logical channel is mapped on is RACH; or

- 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or
- 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":
 - 5> set the variable INVALID_CONFIGURATION to TRUE.
- 3> if the value of the IE "RLC size list" is set to "Configured":
 - 4> if the transport channel this logical channel is mapped on is RACH; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and for none of the RLC sizes defined for that transport channel in the "Transport format set", the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and for none of the RLC sizes defined in the transport format set stored for that transport channel, the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel:
 - 5> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if, as a result of the message this IE is included in, several radio bearers can be mapped onto the same transport channel, and the IE "Logical Channel Identity" was not included in the RB mapping info of any of those radio bearers for a multiplexing option on that transport channel or the same "Logical Channel Identity" was used more than once in the RB mapping info of those radio bearers for the multiplexing options on that transport channel:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> delete all previously stored multiplexing options for that radio bearer;
- 1> store each new multiplexing option for that radio bearer;
- 1> if the IE "Uplink transport channel type" is set to the value "RACH":
 - 2> in FDD:
 - 3> refer the IE "RLC size index" to the RACH Transport Format Set of the first PRACH received in the IE "PRACH system information list" received in SIB5 or SIB6.
 - 2> in TDD:
 - 3> use the first Transport Format of the PRACH of the IE "PRACH system information list" at the position equal to the value in the IE "RLC size index".
- 1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if none were received); and
- 1> in case the selected multiplexing option is a multiplexing option on RACH:
 - 2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.
- 1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:
 - 2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.

- NOTE: The IE "RB mapping info" is only included in IE "Predefined RB configurations" in system information when used for Inter-RAT handover to UTRAN and there is no AM RLC size change involved in this case.
- 1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:
 - 2> re-establish the corresponding RLC entity;
 - 2> configure the corresponding RLC entity with the new RLC size;
 - 2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED RABS whose RLC size is changed; and
 - 2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST CONFIGURED CN DOMAIN whose RLC size is changed:
 - 3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 4> if this IE was included in CELL UPDATE CONFIRM:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.
 - 4> if this IE was included in a reconfiguration message:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.
- 1> if that RB is using UM:
 - 2> indicate the largest applicable RLC size to the corresponding RLC entity.
- 1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);
- 1> configure the MAC with the logical channel priorities according to selected multiplexing option;
- 1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;
- 1> if there is no multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if there is more than one multiplexing option applicable for the transport channels to be used in the RRC state indicated in the IE "RRC State Indicator" included in the received message:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.

In case IE "RLC info" includes IE "Downlink RLC mode" ("DL RLC logical channel info" is mandatory present) but IE "Number of downlink RLC logical channels" is absent in the corresponding IE "RB mapping info", the parameter values are exactly the same as for the corresponding UL logical channels. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards the IE "Channel type", the following rule should be applied to derive the DL channel type from the UL channel included in the IE:

Channel used in UL	DL channel type implied by "same as"
DCH	DCH
RACH	FACH
CPCH	FACH
USCH	DSCH

8.6.5.1 Transport Format Set

If the IE "Transport format set" is included, the UE shall:

- 1> if the transport format set is a RACH TFS received in System Information Block type 5 or 6, and CHOICE "Logical Channel List" has a value different from "Configured" the value "Explicit List":
 - 2> ignore that System Information Block.
- 1> if the transport format set for a downlink transport channel is received in a System Information Block, and CHOICE "Logical Channel List" has a value different from 'ALL':
 - 2> ignore that System Information Block.
- 1> if the transport format set for a downlink transport channel is received in a message on a DCCH, and CHOICE "Logical Channel List" has a value different from 'ALL':
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the value of any IE "RB identity" (and "Logical Channel" for RBs using two UL logical channels) in the IE "Logical channel list" does not correspond to a logical channel indicated to be mapped onto this transport channel in any RB multiplexing option (either included in the same message or previously stored and not changed by this message); or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "Configured" while it is set to "All" or given as an "Explicit List" for any other RLC size; or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "All" and for any logical channel mapped to this transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is given as an "Explicit List" that contains a logical channel for which the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or
- 1> if the "Logical Channel List" for all the RLC sizes defined for that transport channel are given as "Explicit List" and if one of the logical channels mapped onto this transport channel is not included in any of those lists; or
- 1> if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is also set to "Configured"; or
- 1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list" and if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is given as an "Explicit List" that includes an "RLC size index" that does not correspond to any RLC size in this "Transport Format Set":
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the total number of configured transport formats for the transport channel exceeds maxTF:
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID CONFIGURATION to TRUE.
- 1> if the IE "Transport format set" is considered as valid according to the rules above:
 - 2> remove a previously stored transport format set if this exists for that transport channel;
 - 2> store the transport format set for that transport channel;

- 2> consider the first instance of the parameter *Number of TBs and TTI List* within the *Dynamic transport format information* to correspond to transport format 0 for this transport channel, the second to transport format 1 and so on;
- 2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Dedicated transport channel":
 - 3> calculate the transport block size for all transport formats in the TFS using the following

TB size = RLC size + MAC header size,

where:

- MAC header size is calculated according to [15] if MAC multiplexing is used. Otherwise it is 0 bits;
- 'RLC size' reflects the RLC PDU size.
- 2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Common transport channel":
 - 3> calculate the transport block size for all transport formats in the TFS using the following:

TB size = RLC size.

- 2> if the IE "Number of Transport blocks" <> 0 and IE "RLC size" = 0, no RLC PDU data exists but only parity bits exist for that transport format;
- 2> if the IE "Number of Transport blocks" = 0, neither RLC PDU neither data nor parity bits exist for that transport format;
- 2> configure the MAC with the new transport format set (with computed transport block sizes) for that transport channel;
- 2> if the RB multiplexing option for a RB mapped onto that transport channel (based on the stored RB multiplexing option) is not modified by this message:
 - 3> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IE "Logical Channel List" and/or the IE "RLC Size List" from the previously stored RB multiplexing option.
 - 3> if the IE "Transport Format Set" was received within the IE "PRACH system information list":
 - 4> ignore the RLC size indexes in the stored RB multiplexing option that do not correspond to any RLC size in the received Transport Format Set.
 - 3> if the IE "Transport Format Set" was received within the IE "PRACH system information list", if that RB is using AM and if RACH is the transport channel to be used on the uplink:
 - 4> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.
 - 3> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:
 - 4> set the variable INVALID_CONFIGURATION to true.
 - 3> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:
 - 4> re-establish the corresponding RLC entity;
 - 4> configure the corresponding RLC entity with the new RLC size;
 - 4> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and
 - 4> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:

- 5> if this IE was included in system information and if the IE "Status" in variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message that will be sent before the next transmission.
- 5> if this IE was included in CELL UPDATE CONFIRM and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.
- 5> if this IE was included in a reconfiguration message and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.
- 5> if this IE was included in ACTIVE SET UPDATE and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the ACTIVE SET UPDATE COMPLETE message for this CN domain.
- 3> if that RB is using UM:
 - 4> indicate the largest applicable RLC size to the corresponding RLC entity.
- 3> configure MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB.

For configuration restrictions on Blind Transport Format Detection, see [27].

10.3.4.21 RB mapping info

A multiplexing option for each possible transport channel this RB can be multiplexed on.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Information for each multiplexing option	MP	1 to <maxrbm uxOptions></maxrbm 		
>RLC logical channel mapping indicator	CV-UL- RLCLogica IChannels		Boolean	TRUE indicates that the first logical channel shall be used for data PDUs and the second logical channel shall be used for control PDUs. FALSE indicates that control and data PDUs can be sent on either of the two logical channels. This parameter is not used in this release and shall be set to TRUE.
>Number of uplink RLC logical channels	CV-UL- RLC info	1 to MaxLoCHp erRLC		1 or 2 logical channels per RLC entity or radio bearer RLC [16]
>>Uplink transport channel type	MP		Enumerated(DCH,RACH, CPCH,USC H)	CPCH is FDD only USCH is TDD only
>>ULTransport channel identity	CV-UL- DCH/USC		Transport channel	This is the ID of a DCH or USCH (TDD only) that this RB

Information Element/Group name	Need	Multi	Type and reference	Semantics description
	Н		identity 10.3.5.18	could be mapped onto.
>>Logical channel identity	OP		Integer(115)	This parameter is used to distinguish logical channels multiplexed by MAC on a transport channel.
>>CHOICE RLC size list	MP			The RLC sizes that are allowed for this logical channel For radio bearers mapped to RACH, "Explicit list" is the only valid choice. The UE shall regard all other choices as undefined IE values and handle these as specified in clause 9.
>>>All			Null	All RLC sizes listed in the Transport Format Set. 10.3.5.23
>>>Configured			Null	The RLC sizes configured for this logical channel in the <i>Transport Format Set.</i> 10.3.5.23 if present in this message or in the previously stored configuration otherwise
>>>Explicit List		1 to <maxtf></maxtf>		Lists the RLC sizes that are valid for the logical channel.
>>>RLC size index	MP	SIIIdATT	Integer(1m axTF)	The integer number is a reference to the <i>RLC size</i> which arrived at that position in the <i>Transport Format Set</i> 10.3.5.23
>>MAC logical channel priority	MP		Integer(18)	This is priority between a user's different RBs (or logical channels). [15]
>Downlink RLC logical channel info	CV-DL- RLC info			
>>Number of downlink RLC logical channels	MD	1 to MaxLoCHp erRLC		1 or 2 logical channels per RLC entity or radio bearer RLC [16] Default value is that parameter values for DL are exactly the same as for corresponding UL logical channel. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards to the IE "Channel type", rule is specified in 8.6.4.8.
>>>Downlink transport channel type	MP		Enumerated(DCH,FACH, DSCH,DCH+ DSCH)	
>>>DL DCH Transport channel identity	CV-DL- DCH		Transport channel identity 10.3.5.18	
>>>DL DSCH Transport channel identity	CV-DL- DSCH		Transport channel identity 10.3.5.18	
>>>Logical channel identity	OP		Integer(115	16 is reserved

Condition	Explanation

UL-RLC info	If "CHOICE <i>Uplink RLC mode</i> " in the IE "RLC info" that applies for that RB (i.e. either the one stored or received in the same message for the RB for which the "RB mapping info" was received, or the one stored or received in the same message for the RB pointed at in the IE "Same as RB" in the IE "RB information to setup" stored or received in the same message) is present this IE is mandatory present. Otherwise the IE is not needed.
DL-RLC info	If "CHOICE Downlink RLC mode" in the IE "RLC info" that applies for that RB (i.e. either the one stored or received in the same message for the RB for which the "RB mapping info" was received, or the one stored or received in the same message for the RB pointed at in the IE "Same as RB" in the IE "RB information to setup" stored or received in the same message) is present this IE is mandatory present. Otherwise the IE is not needed.
UL-RLCLogicalChannels	If "Number of uplink RLC logical channels" in IE "RB mapping info" is 2, then this IE is mandatory present. Otherwise this IE is not needed.
UL-DCH/USCH	If IE "Uplink transport channel type" is equal to "DCH" or "USCH" (TDD only) this IE is mandatory present. Otherwise the IE is not needed.
DL-DCH	If IE "Downlink transport channel type" is equal to "DCH" or "DCH+DSCH" this IE is mandatory present. Otherwise the IE is not needed.
DL-DSCH	If IE "Downlink transport channel type" is equal to "DSCH" or "DCH+DSCH" this IE is mandatory present. Otherwise the IE is not needed.

10.3.5.23 Transport Format Set

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE Transport channel type	MP			
>Dedicated transport channels				The transport channel that is configured with this TFS is of type DCH
>>Dynamic Transport Format Information	MP	1 to <maxtf></maxtf>		
>>>RLC Size	MP		Integer(049 92)	Unit is bits
>>>Number of TBs and TTI List	MP	1 to <maxtf></maxtf>		Present for every valid number of TB's (and TTI) for this RLC Size.
>>>Transmission Time Interval	CV- dynamicTT I		Integer(10,2 0,40,80)	Unit is ms.
>>>Number of Transport blocks	MP		Integer(051 2)	
>>>CHOICE Logical Channel List	MP			The logical channels that are allowed to use this RLC Size
>>>ALL			Null	All logical channels mapped to this transport channel.
>>>>Configured			Null	The logical channels configured to use this RLC size in the <i>RB mapping info.</i> 10.3.4.21 if present in this message or in the previously

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>>>Explicit List		1 to 15		stored configuration otherwise Lists the logical channels that are allowed to use this RLC size.
>>>>RB Identity	MP		RB identity 10.3.4.16	
>>>>LogicalChannel	CH-UL- RLCLogica IChannels		Integer(01)	Indicates the relevant UL logical channel for this RB. "0" corresponds to the first, "1" corresponds to the second UL logical channel configured for this RB in the IE "RB mapping info".
>>Semi-static Transport Format Information	MP		Semi-static Transport Format Information 10.3.5.11	
>Common transport channels				The transport channel that is configured with this TFS is of a type not equal to DCH
>>Dynamic Transport Format Information	MP	1 to <maxtf></maxtf>		Note
>>>RLC Size	MP		Integer(049 92)	Unit is bits
>>>Number of TBs and TTI List	MP	1 to <maxtf></maxtf>		Present for every valid number of TB's (and TTI) for this RLC Size.
>>>>Number of Transport blocks	MP		Integer(051 2)	
>>>CHOICE mode	MP		,	
>>>>FDD >>>>TDD				(no data)
>>>>>Transmission Time Interval	CV- dynamicTT		Integer(10,2 0,40,80)	Unit is ms.
>>>CHOICE Logical Channel List	MP			The logical channels that are allowed to use this RLC Size. For radio bearers mapped to RACH, the UE shall regard "Explicit list" as an undefined IE value and handle these as specified in clause 9.
>>>ALL			Null	All logical channels mapped to this transport channel.
>>>Configured			Null	The logical channels configured to use this RLC size in the <i>RB mapping info.</i> 10.3.4.21 if present in this message or in the previously stored configuration otherwise
>>>Explicit List		1 to 15		Lists the logical channels that are allowed to use this RLC size.
>>>>RB Identity	MP		RB identity 10.3.4.16	
>>>>LogicalChannel	CV-UL- RLCLogica IChannels		Integer(01)	Indicates the relevant UL logical channel for this RB. "0" corresponds to the first, "1" corresponds to the second UL logical channel configured for this RB in the IE "RB mapping info".
>>Semi-static Transport Format	MP		Semi-static	

Information Element/Group	Need	Multi	Type and	Semantics description
name			reference	
Information			Transport	
			Format	
			Information	
			10.3.5.11	

Condition	Explanation
dynamicTTI	This IE is mandatory present if dynamic TTI usage is indicated in IE Transmission Time Interval in Semistatic Transport Format Information. Otherwise it is not needed.
UL-RLCLogicalChannels	If "Number of uplink RLC logical channels" in IE "RB mapping info" in this message is 2 or the IE "RB mapping info" is not present in this message and 2 UL logical channels are configured for this RB, then this IE is mandatory present. Otherwise this IE is not needed.

NOTE: The parameter "rate matching attribute" is in line with the RAN WG1 specifications. However, it is not currently in line with the description in [34].

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19-23 August 2002

		CHANG	E REQ	UES	ST.	,		CR-Form-v7
*	25.331	CR 1608	≋rev	-	¥	Current version:	5.1.0	¥

3 2 2 3	5.331 CR 1608	#rev - [#]	Current version:	5.1.0 **				
For HELP on using	g this form, see bottom of this	s page or look at th	ne pop-up text over	the 왜 symbols.				
Proposed change affe	ects: UICC appsЖ	ME X Radio A	Access Network 👗	Core Network				
Title: 第 C	Correction to allowed logical c	hannel list choice f	for RACH transport	t channels				
Source: # T	SG-RAN WG2							
Work item code: 第 T	El		Date:	/08/2002				
Category: # A			Release: # Re					
Us	re <u>one</u> of the following categories F (correction)		2 (GSI	ollowing releases: M Phase 2)				
	A (corresponds to a correctionB (addition of feature),	n in an earlier releas		ease 1996) ease 1997)				
	C (functional modification of	feature)	R98 (Rele	ease 1998)				
De	D (editorial modification) tailed explanations of the above	categories can		ease 1999) ease 4)				
be	found in 3GPP <u>TR 21.900</u> .			ease 5) ease 6)				
			,	, and the second				
Reason for change: 3	# Currently the procedural the logical channel list ch "Configured" should be the	oice "All" for RACH	H transport channel					
	Also for RB mapping ther should be the only valid of			"Explicit list"				
	Additionally text is added 10.3.4.21 (that "Explicit list							
Summary of change:	In section 8.6.5.1 the RAI the system information bl			to the case where				
	Additionally text is added 10.3.4.21 (that "Explicit list							
	Finally semantic description 10.3.5.23 as they are now			0.3.4.21 and				
Consequences if not approved:	Erroneous definitions of r would be possible in syst		transport channels	to logical channels				
	Impact analysis: Functionality corrected : I	RB mapping of RA	CH transport chan	nels				
	Isolated impact statemen missing procedural text o							

indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

The behaviour if either UE or UTRAN or both did not implement the CR then it would be possible to have erroneous definitions of RB mappings for RACH transport channels which the UE could not identify.

Clauses affected:	# 8.6.4.8, 8.6.5.1, 10.2.4.21 and 10.3.5.23
Other specs Affected:	Y N X Other core specifications Test specifications O&M Specifications
Other comments:	x

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.4.8 RB mapping info

If the IE "RB mapping info" is included, the UE shall:

- 1> for each multiplexing option of the RB:
 - 2> if a transport channel that would not exist as a result of the message (i.e. removed in the same message in IE "Deleted DL TrCH information" and IE "Deleted UL TrCH information") is referred to:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if a multiplexing option that maps a logical channel corresponding to a TM-RLC entity onto RACH, CPCH, FACH or DSCH or HS-DSCH is included:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if the multiplexing option realises the radio bearer on the uplink (resp. on the downlink) using two logical channels with different values of the IE "Uplink transport channel type" (resp. of the IE "Downlink transport channel type"):
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if that RB is using TM and the IE "Segmentation indication" is set to TRUE and, based on the multiplexing configuration resulting from this message, the logical channel corresponding to it is mapped onto the same transport channel as another logical channel:
 - 3> set the variable INVALID CONFIGURATION to TRUE.
 - 2> if the transport channel considered in that multiplexing option is different from RACH and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> if that RB is using UM or TM and the multiplexing option realises it using two logical channels:
 - 3> set the variable INVALID_CONFIGURATION to TRUE.
 - 2> for each logical channel in that multiplexing option:
 - 3> if the value of the IE "RLC size list" is set to "Explicit list":
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the IE transport format set of that transport channel given in the message; or
 - 4> if the transport channel this logical channel is mapped on in this multiplexing option is different from RACH, and if a "Transport format set" for that transport channel is not included in the same message, and the value (index) of any IE "RLC size index" in the IE "Explicit list" does not correspond to an "RLC size" in the stored transport format set of that transport channel; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":
 - 5> set the variable INVALID_CONFIGURATION to TRUE.
 - 3> if the value of the IE "RLC size list" is set to "All":
 - 4> if the transport channel this logical channel is mapped on is RACH; or

- 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and the value of any IE "Logical channel list" in the transport format set is not set to "Configured"; or
- 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and the value of any IE "Logical channel list" in the stored transport format set of that transport channel is not set to "Configured":
 - 5> set the variable INVALID_CONFIGURATION to TRUE.
- 3> if the value of the IE "RLC size list" is set to "Configured":
 - 4> if the transport channel this logical channel is mapped on is RACH; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is included in the same message, and for none of the RLC sizes defined for that transport channel in the "Transport format set", the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel; or
 - 4> if a "Transport format set" for the transport channel this logical channel is mapped on in this multiplexing option is not included in the same message, and for none of the RLC sizes defined in the transport format set stored for that transport channel, the "Logical Channel List" is set to "All" or given as an "Explicit List" which contains this logical channel:
 - 5> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if, as a result of the message this IE is included in, several radio bearers can be mapped onto the same transport channel, and the IE "Logical Channel Identity" was not included in the RB mapping info of any of those radio bearers for a multiplexing option on that transport channel or the same "Logical Channel Identity" was used more than once in the RB mapping info of those radio bearers for the multiplexing options on that transport channel:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> delete all previously stored multiplexing options for that radio bearer;
- 1> store each new multiplexing option for that radio bearer;
- 1> select and configure the multiplexing options applicable for the transport channels to be used;
- 1> if the IE "Uplink transport channel type" is set to the value "RACH":
 - 2> in FDD:
 - 3> refer the IE "RLC size index" to the RACH Transport Format Set of the first PRACH received in the IE "PRACH system information list" received in SIB5 or SIB6.
 - 2> in TDD:
 - 3> use the first Transport Format of the PRACH of the IE "PRACH system information list" at the position equal to the value in the IE "RLC size index".
- 1> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IEs "RLC size list" and/or the IEs "Logical Channel List" included in the applicable "Transport format set" (either the ones received in the same message or the ones stored if none were received); and
- 1> in case the selected multiplexing option is a multiplexing option on RACH:
 - 2> ignore the RLC size indexes that do not correspond to any RLC size within the Transport Format Set stored for RACH.
- 1> if RACH is the transport channel to be used on the uplink, if that RB has a multiplexing option on RACH and if it is using AM:
 - 2> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.

- 1> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:
 - 2> re-establish the corresponding RLC entity;
 - 2> configure the corresponding RLC entity with the new RLC size;
 - 2> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and
 - 2> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:
 - 3> if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 4> if this IE was included in system information:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message that will be sent before the next transmission.
 - 4> if this IE was included in CELL UPDATE CONFIRM:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.
 - 4> if this IE was included in a reconfiguration message:
 - 5> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.
- 1> if that RB is using UM:
 - 2> indicate the largest applicable RLC size to the corresponding RLC entity.
- 1> configure MAC multiplexing according to the selected multiplexing option (MAC multiplexing shall only be configured for a logical channel if the transport channel it is mapped on according to the selected multiplexing option is the same as the transport channel another logical channel is mapped on according to the multiplexing option selected for it);
- 1> configure the MAC with the logical channel priorities according to selected multiplexing option;
- 1> configure the MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB;
- 1> if there is no multiplexing option applicable for the transport channels to be used:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if there is more than one multiplexing option applicable for the transport channels to be used:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.

In case IE "RLC info" includes IE "Downlink RLC mode" ("DL RLC logical channel info" is mandatory present) but IE "Number of downlink RLC logical channels" is absent in the corresponding IE "RB mapping info", the parameter values are exactly the same as for the corresponding UL logical channels. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards the IE "Channel type", the following rule should be applied to derive the DL channel type from the UL channel included in the IE:

Channel used in UL	DL channel type implied by "same as"
DCH	DCH
RACH	FACH
CPCH	FACH
USCH	DSCH

8.6.5.1 Transport Format Set

If the IE "Transport format set" is included, the UE shall:

- 1> if the transport format set is a RACH TFS received in System Information Block type 5 or 6, and CHOICE "Logical Channel List" has the value "Explicit List":
 - 2> ignore that System Information Block.
- 1> if the transport format set for a downlink transport channel is received in a System Information Block, and CHOICE "Logical Channel List" has a value different from 'ALL':
 - 2> ignore that System Information Block.
- 1> if the transport format set for a downlink transport channel is received in a message on a DCCH, and CHOICE "Logical Channel List" has a value different from 'ALL':
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID CONFIGURATION to TRUE.
- 1> if the value of any IE "RB identity" (and "Logical Channel" for RBs using two UL logical channels) in the IE "Logical channel list" does not correspond to a logical channel indicated to be mapped onto this transport channel in any RB multiplexing option (either included in the same message or previously stored and not changed by this message); or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "Configured" while it is set to "All" or given as an "Explicit List" for any other RLC size; or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is set to "All" and for any logical channel mapped to this transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or
- 1> if the "Logical Channel List" for any of the RLC sizes defined for that transport channel is given as an "Explicit List" that contains a logical channel for which the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is not set to "Configured"; or
- 1> if the "Logical Channel List" for all the RLC sizes defined for that transport channel are given as "Explicit List" and if one of the logical channels mapped onto this transport channel is not included in any of those lists; or
- 1> if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the value of the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is also set to "Configured"; or
- 1> if the IE "Transport Format Set" was not received within the IE "PRACH system information list" and if the "Logical Channel List" for the RLC sizes defined for that transport channel is set to "Configured" and for any logical channel mapped onto that transport channel, the "RLC size list" (either provided in the IE "RB mapping info" if included in the same message, or stored) is given as an "Explicit List" that includes an "RLC size index" that does not correspond to any RLC size in this "Transport Format Set":
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the total number of configured transport formats for the transport channel exceeds maxTF:
 - 2> keep the transport format set if this exists for that transport channel;
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the IE "Transport format set" is considered as valid according to the rules above:
 - 2> remove a previously stored transport format set if this exists for that transport channel;

- 2> store the transport format set for that transport channel;
- 2> consider the first instance of the parameter *Number of TBs and TTI List* within the *Dynamic transport format information* to correspond to transport format 0 for this transport channel, the second to transport format 1 and so on;
- 2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Dedicated transport channel":
 - 3> calculate the transport block size for all transport formats in the TFS using the following

TB size = RLC size + MAC header size,

where:

- MAC header size is calculated according to [15] if MAC multiplexing is used. Otherwise it is 0 bits;
- 'RLC size' reflects the RLC PDU size.
- 2> if the IE "Transport format Set" has the choice "Transport channel type" set to "Common transport channel":
 - 3> calculate the transport block size for all transport formats in the TFS using the following:

TB size = RLC size.

- 2> if the IE "Number of Transport blocks" <> 0 and IE "RLC size" = 0, no RLC PDU data exists but only parity bits exist for that transport format;
- 2> if the IE "Number of Transport blocks" = 0, neither RLC PDU neither data nor parity bits exist for that transport format;
- 2> configure the MAC with the new transport format set (with computed transport block sizes) for that transport channel;
- 2> if the RB multiplexing option for a RB mapped onto that transport channel (based on the stored RB multiplexing option) is not modified by this message:
 - 3> determine the sets of RLC sizes that apply to the logical channels used by that RB, based on the IE "Logical Channel List" and/or the IE "RLC Size List" from the previously stored RB multiplexing option.
 - 3> if the IE "Transport Format Set" was received within the IE "PRACH system information list":
 - 4> ignore the RLC size indexes in the stored RB multiplexing option that do not correspond to any RLC size in the received Transport Format Set.
 - 3> if the IE "Transport Format Set" was received within the IE "PRACH system information list", if that RB is using AM and if RACH is the transport channel to be used on the uplink:
 - 4> apply the largest size amongst the ones derived according to the previous bullet for the RLC size (or RLC sizes in case the RB is realised using two logical channels) for the corresponding RLC entity.
 - 3> if the IE "Transport Format Set" was not received within the IE "PRACH system information list", and if that RB is using AM and the set of RLC sizes applicable to the logical channel transferring data PDUs has more than one element:
 - 4> set the variable INVALID_CONFIGURATION to true.
 - 3> if that RB is using AM and the RLC size applicable to the logical channel transporting data PDUs is different from the one derived from the previously stored configuration:
 - 4> re-establish the corresponding RLC entity;
 - 4> configure the corresponding RLC entity with the new RLC size;
 - 4> for each AM RLC radio bearer in the CN domain as indicated in the IE "CN domain identity" in the IE "RAB info" in the variable ESTABLISHED_RABS whose RLC size is changed; and

- 4> for each AM RLC signalling radio bearer in the CN domain as indicated in the IE "CN domain identity" in the variable LATEST_CONFIGURED_CN_DOMAIN whose RLC size is changed:
 - 5> if this IE was included in system information and if the IE "Status" in variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" for this CN domain that will be included in the CELL UPDATE message that will be sent before the next transmission.
 - 5> if this IE was included in CELL UPDATE CONFIRM and if the IE "Status" in the variable CIPHERING STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" included in the latest transmitted CELL UPDATE message for this CN domain.
 - 5> if this IE was included in a reconfiguration message and if the IE "Status" in the variable CIPHERING_STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the reconfiguration complete message for this CN domain.
 - 5> if this IE was included in ACTIVE SET UPDATE and if the IE "Status" in the variable CIPHERING STATUS of this CN domain is set to "Started":
 - 6> set the HFN values for the corresponding RLC entity equal to the value of the IE "START" that will be included in the ACTIVE SET UPDATE COMPLETE message for this CN domain.
- 3> if that RB is using UM:
 - 4> indicate the largest applicable RLC size to the corresponding RLC entity.
- 3> configure MAC with the set of applicable RLC Sizes for each of the logical channels used for that RB.

For configuration restrictions on Blind Transport Format Detection, see [27].

10.3.4.21 RB mapping info

A multiplexing option for each possible transport channel this RB can be multiplexed on.

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
Information for each multiplexing option	MP	1 to <maxrbm uxOptions></maxrbm 			
>RLC logical channel mapping indicator	CV-UL- RLCLogica IChannels		Boolean	TRUE indicates that the first logical channel shall be used for data PDUs and the second logical channel shall be used for control PDUs. FALSE indicates that control and data PDUs can be sent on either of the two logical channels. This parameter is not used in this release and shall	

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
- Hallo			1010101100	be set to TRUE.	
>Number of uplink RLC logical	CV-UL-	1 to		1 or 2 logical	
channels	RLC info	MaxLoCHp		channels per RLC	
onarii olo	TALO IIIIO	erRLC		entity or radio	
		OTTLE		bearer	
				RLC [16]	
>>Uplink transport channel type	MP		Enumerated(CPCH is FDD	
,			DCH,RACH,	only	
			CPCH,USC	USCH is TDD	
			H)	only	
>>ULTransport channel identity	CV-UL-		Transport	This is the ID of a	
	DCH/USC		channel	DCH or USCH	
	H		identity	(TDD only) that	
			10.3.5.18	this RB could be	
				mapped onto.	
>>Logical channel identity	OP		Integer(115	This parameter is	
)	used to	
				distinguish logical	
				channels	
				multiplexed by	
				MAC on a	
011010 = 10	1	<u> </u>		transport channel.	
>>CHOICE RLC size list	MP			The RLC sizes	
				that are allowed	
				for this logical	
				channel	
				For radio bearers	
				mapped to RACH, "Explicit list" is the	
				only valid choice.	
				The UE shall	
				regard all other	
				choices as	
				undefined IE	
				values and handle	
				these as specified	
				in clause 9.	
>>>AII			Null	All RLC sizes	
				listed in the	
				Transport Format	
				Set. 10.3.5.23	
>>>Configured			Null	The RLC sizes	
				configured for this	
				logical channel in	
				the Transport Format Set.	
				10.3.5.23 if	
				present in this	
				message or in the	
				previously stored	
				configuration	
				otherwise	
>>>Explicit List		1 to		Lists the RLC	
		<maxtf></maxtf>		sizes that are	
				valid for the	
				logical channel.	
>>>RLC size index	MP		Integer(1m	The integer	
			axTF)	number is a	
				reference to the	
				RLC size which	
				arrived at that	
				position in the Transport Format	
				Set 10.3.5.23	
>>MAC logical channel priority	MP		Integer(18)	This is priority	
22147 Co logical challies priority	1411		integer(10)	between a user's	
	I	ı	1	231110011 4 4001 0	

Information Element/Group name	Need	Multi	Type and reference	Semantics description	Version
				different RBs (or logical channels). [15]	
>Downlink RLC logical channel info	CV-DL- RLC info				
>>Number of downlink RLC logical channels	MD	1 to MaxLoCHp erRLC		1 or 2 logical channels per RLC entity or radio bearer RLC [16] Default value is that parameter values for DL are exactly the same as for corresponding UL logical channel. In case two multiplexing options are specified for the UL, the first options shall be used as default for the DL. As regards to the IE "Channel type", rule is specified in 8.6.4.8.	
>>>Downlink transport channel type	MP		Enumerated(DCH,FACH, DSCH,DCH+ DSCH , HS-DSCH, DCH + HS-		REL-5
			DSCH)		
>>>DL DCH Transport channel identity	CV-DL- DCH		Transport channel identity 10.3.5.18		
>>>DL DSCH Transport channel identity	CV-DL- DSCH		Transport channel identity 10.3.5.18		
>>>DL HS-DSCH MAC-d flow identity	C-DL-HS- DSCH		MAC-d flow identity 10.3.5.7c		REL-5
>>>Logical channel identity	OP		Integer(115	16 is reserved	

Condition	Explanation
UL-RLC info	If "CHOICE Uplink RLC mode" in the IE "RLC info" that applies for that RB (i.e. either the one stored or received in the same message for the RB for which the "RB mapping info" was received, or the one stored or received in the same message for the RB pointed at in the IE "Same as RB" in the IE "RB information to setup" stored or received in the same message) is present this IE is mandatory present. Otherwise the IE is not needed.
DL-RLC info	If "CHOICE Downlink RLC mode" in the IE "RLC info" that applies for that RB (i.e. either the one stored or received in the same message for the RB for which the "RB mapping info" was received, or the one stored or received in the same message for the RB pointed

	at in the IE "Same as RB" in the IE "RB information to setup" stored or received in the same message) is present this IE is mandatory present. Otherwise the IE is not needed.
UL-RLCLogicalChannels	If "Number of uplink RLC logical channels" in IE "RB mapping info" is 2, then this IE is mandatory present. Otherwise this IE is not needed.
UL-DCH/USCH	If IE "Uplink transport channel type" is equal to "DCH" or "USCH" (TDD only) this IE is mandatory present. Otherwise the IE is not needed.
DL-DCH	If IE "Downlink transport channel type" is equal to "DCH" or "DCH+DSCH" this IE is mandatory present. Otherwise the IE is not needed.
DL-DSCH	If IE "Downlink transport channel type" is equal to "DSCH" or "DCH+DSCH" this IE is mandatory present. Otherwise the IE is not needed.
DL-HSDSCH	If IE "Downlink transport channel type" is equal to "HSDSCH" this IE is mandatory present. Otherwise the IE is not needed.

10.3.5.23 Transport Format Set

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE Transport channel type	MP			
>Dedicated transport channels				The transport channel that is configured with this TFS is of type DCH
>>Dynamic Transport Format Information	MP	1 to <maxtf></maxtf>		
>>>RLC Size	MP		Integer(049 92)	Unit is bits
>>>Number of TBs and TTI List	MP	1 to <maxtf></maxtf>		Present for every valid number of TB's (and TTI) for this RLC Size.
>>>>Transmission Time Interval	CV- dynamicTT I		Integer(10,2 0,40,80)	Unit is ms.
>>>Number of Transport blocks	MP		Integer(051 2)	
>>>CHOICE Logical Channel List	MP			The logical channels that are allowed to use this RLC Size
>>>ALL			Null	All logical channels mapped to this transport channel.
>>>>Configured			Null	The logical channels configured to use this RLC size in the <i>RB mapping info.</i> 10.3.4.21 if present in this message or in the previously stored configuration otherwise
>>>Explicit List		1 to 15		Lists the logical channels that are allowed to use this RLC size.
>>>>RB Identity	MP		RB identity 10.3.4.16	
>>>>LogicalChannel	CH-UL- RLCLogica IChannels		Integer(01)	Indicates the relevant UL logical channel for this RB. "0" corresponds to the first, "1" corresponds to the second UL logical channel configured for

Information Element/Group name	Need	Multi	Type and reference	Semantics description
				this RB in the IE "RB mapping info".
>>Semi-static Transport Format Information	MP		Semi-static Transport Format Information 10.3.5.11	
>Common transport channels				The transport channel that is configured with this TFS is of a type not equal to DCH
>>Dynamic Transport Format Information	MP	1 to <maxtf></maxtf>		Note
>>>RLC Size	MP		Integer(049 92)	Unit is bits
>>>Number of TBs and TTI List	MP	1 to <maxtf></maxtf>		Present for every valid number of TB's (and TTI) for this RLC Size.
>>>>Number of Transport blocks	MP		Integer(051 2)	
>>>>CHOICE mode	MP			
>>>>FDD				(no data)
>>>>TDD				
>>>>>Transmission Time Interval	CV- dynamicTT I		Integer(10,2 0,40,80)	Unit is ms.
>>>CHOICE Logical Channel List	MP			The logical channels that are allowed to use this RLC Size. For radio bearers mapped to RACH, the UE shall regard "Explicit list" as an undefined IE value and handle these as specified in clause 9.
>>>ALL			Null	All logical channels mapped to this transport channel.
>>>Configured			Null	The logical channels configured to use this RLC size in the <i>RB mapping info</i> . 10.3.4.21 if present in this message or in the previously stored configuration otherwise
>>>Explicit List		1 to 15		Lists the logical channels that are allowed to use this RLC size.
>>>>RB Identity	MP		RB identity 10.3.4.16	
>>>>LogicalChannel	CV-UL- RLCLogica IChannels		Integer(01)	Indicates the relevant UL logical channel for this RB. "0" corresponds to the first, "1" corresponds to the second UL logical channel configured for this RB in the IE "RB mapping info".
>>Semi-static Transport Format Information	MP		Semi-static Transport Format Information 10.3.5.11	

Explanation
This IE is mandatory present if dynamic TTI usage is indicated in IE Transmission Time Interval in Semistatic Transport Format Information. Otherwise it is not needed.

UL-RLCLogicalChannels	If "Number of uplink RLC logical channels" in IE "RB mapping info" in this message is 2 or the IE "RB mapping info" is not present in this message and 2 UL
	logical channels are configured for this RB, then this IE is mandatory present. Otherwise this IE is not needed.

NOTE: The parameter "rate matching attribute" is in line with the RAN WG1 specifications. However, it is not currently in line with the description in [34].

3GPP TSG-RAN2 Meeting #31 Stockholm-Arlanda, Sweden, August 19 - 23, 2002

		CHANG	SE REQ	IIE6.	Γ	CR-Form-v7
		CITAIN		ULS	•	
*	TS 25.331	CR 1609	жrev	- #	Current version:	3.11.0 [#]
For HE	ELP on using this for	m. see bottom of	this page or l	look at ti	he pop-up text ove	er the 第 symbols.
7 01 <u>112</u>	CIT USING UNS FOR	m, see bollom or	uns page or i	oon at ti	ic pop up text ove	in the 66 Symbols.

ME Radio Access Network X Core Network Proposed change affects: UICC apps# Clarification of SRNS Relocation Info Title: TSG-RAN WG2 Source: Date: # 20/08/2002 Release: # R99 Category: Use one of the following categories: Use <u>one</u> of the following releases: (GSM Phase 2) F (correction) 2 A (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) (Release 5) be found in 3GPP TR 21.900. Rel-5

Reason for change: 第 1.

1. The parameter value "await RB Release Complete" is not included in ASN.1 of SRNS Relocation Info although it is included in the tabular. This value would be needed when RB release procedure is used to switch the UE to CELL_FACH and trigger SRNS relocation upon the following cell update message.

Rel-6

(Release 6)

2. With the current standard in the IE "SRNS Relocation info" in the list "Ciphering info per radio bearer" there should be an IE "RB Id" giving the RB identity of the radio bearer for which this information is valid.

Summary of change: ₩

- 1. The parameter value "awaitRRC-ConnectionRe-establishmentComplete" is redefined as "awaitRB-ReleaseComplete"
- 2. It is clarified that the order of occurrence of the IE "Ciphering info per radio bearer" in the "SRNS Relocation Info" IE is the same as in the IE "Signalling RB information list" and the RBs in the IE "RAB information list". The signalling RBs are supposed to be listed first. Only UM and AM RBs that are ciphered are supposed to be listed.

Isolated Impact analysis

No impact on a UE implementations because neither procedure nor parameter related to UE is changed.

It would not have any impact on UTRAN implementations behaving like specified in this CR, a UTRAN implementation that does not behave according this CR may not be able to succeed this type of relocation when the UE is switched to CELL FACH.

Consequences if not approved:

SRNS Relocation in CELL_FACH triggered by a RB Release will not work.

Clauses affected: # 11.5, 14.12.4.2

Other specs affected:	ж	Y	X	Other core specifications Test specifications O&M Specifications	ĸ	
Other comments:	ж					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

11.5 RRC information between network nodes

```
Internode-definitions DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
    HandoverToUTRANCommand,
    MeasurementReport,
    PhysicalChannelReconfiguration,
    RadioBearerReconfiguration,
    RadioBearerRelease,
   RadioBearerSetup,
    RRC-FailureInfo,
    TransportChannelReconfiguration
FROM PDU-definitions
-- Core Network IEs :
    CN-DomainIdentity,
    CN-DomainInformationList,
    CN-DRX-CycleLengthCoefficient,
   NAS-SystemInformationGSM-MAP,
-- UTRAN Mobility IEs :
   CellIdentity,
    URA-Identity,
-- User Equipment IEs :
    C-RNTI,
    DL-PhysChCapabilityFDD-v380ext,
    FailureCauseWithProtErr,
    RRC-MessageSequenceNumber,
    STARTList,
    STARTSingle,
    START-Value,
    U-RNTI,
    UE-RadioAccessCapability,
   {\tt UE-RadioAccessCapability-v370ext}\,,
    UE-RadioAccessCapability-v380ext,
    UE-RadioAccessCapability-v3a0ext,
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RB-Identity,
    SRB-InformationSetupList.
-- Transport Channel IEs :
    CPCH-SetID,
    DL-CommonTransChInfo,
    DL-AddReconfTransChInfoList,
   DRAC-StaticInformationList,
    UL-CommonTransChInfo,
    UL-AddReconfTransChInfoList,
-- Measurement IEs :
   MeasurementIdentity,
    MeasurementReportingMode,
    MeasurementType,
    AdditionalMeasurementID-List,
   PositionEstimate,
-- Other IEs :
    InterRAT-UE-RadioAccessCapabilityList
FROM InformationElements
    maxCNdomains,
    maxNoOfMeas,
    maxRB,
   maxSRBsetup
FROM Constant-definitions;
-- Part 1: Class definitions similar to what has been defined in 11.1 for RRC messages
-- Information that is tranferred in the same direction and across the same path is grouped
__ ***************************
-- RRC information, to target RNC
```

```
__ ****************************
-- RRC Information to target RNC sent either from source RNC or from another RAT
ToTargetRNC-Container ::= CHOICE {
   interRAThandover
                                      InterRATHandoverInfoWithInterRATCapabilities,
   srncRelocation
                                      SRNC-RelocationInfo,
   extension
}
__ ****************************
-- RRC information, target RNC to source RNC
__ ***************
TargetRNC-ToSourceRNC-Container::= CHOICE {
   radioBearerSetup RadioBearerSetup, radioBearerReconfiguration RadioBearerReconfiguration,
                                      RadioBearerRelease,
   radioBearerRelease
   transportChannelReconfiguration physicalChannelReconfiguration physicalChannelReconfiguration physicalChannelReconfiguration,
                                     TransportChannelReconfiguration,
                                      RRC-FailureInfo,
   rrc-FailureInfo
   extension
                                      NULL
}
-- Part2: Container definitions, similar to the PDU definitions in 11.2 for RRC messages
-- In alphabetical order
-- Handover to UTRAN information
__ ****************
InterRATHandoverInfoWithInterRATCapabilities ::= CHOICE {
                                  SEOUENCE {
        -- IE InterRATHandoverInfoWithInterRATCapabilities-r3-IEs also
        -- includes non critical extensions
                                {\tt InterRATHandoverInfoWithInterRATCapabilities-r3-IEs,}
        interRAThandoverInfo-r3
       v390NonCriticalExtensions
                                          SEOUENCE {
           interRATHandoverInfoWithInterRATCapabilities-v390ext
   InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs,
           -- Reserved for future non critical extension
           nonCriticalExtensions
                                          SEQUENCE {} OPTIONAL
       }
               OPTIONAL
    criticalExtensions
                                  SEQUENCE {}
}
                                                         SEQUENCE {
InterRATHandoverInfoWithInterRATCapabilities-r3-IEs::=
       -- The order of the IEs may not reflect the tabular format
        -- but has been chosen to simplify the handling of the information in the BSC
    -- Other IEs
       ue-RATSpecificCapability
                                      InterRAT-UE-RadioAccessCapabilityList
                                                                             OPTIONAL,
        -- interRATHandoverInfo, Octet string is used to obtain 8 bit length field prior to
        -- actual information. This makes it possible for BSS to transparently handle information
        -- received via GSM air interface even when it includes non critical extensions.
        -- The octet string shall include the InterRATHandoverInfo information
        -- The BSS can re-use the 04.18 length field received from the MS
                                      OCTET STRING (SIZE (0..255))
       interRATHandoverInfo
}
InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs ::= SEQUENCE {
    -- User equipment IEs
                                                                                 OPTIONAL
       failureCauseWithProtErr
                                          FailureCauseWithProtErr
}
__ ****************
-- SRNC Relocation information
__ **************************
SRNC-RelocationInfo ::= CHOICE {
   r3
                                  SEQUENCE {
       sRNC-RelocationInfo-r3
                                      SRNC-RelocationInfo-r3-IEs,
```

```
v380NonCriticalExtensions
                                            SEQUENCE {
            sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
            -- Reserved for future non critical extension
                                                SEQUENCE {
            v390NonCriticalExtensions
                sRNC-RelocationInfo-v390ext
                                                    SRNC-RelocationInfo-v390ext-IEs,
                v3a0NonCriticalExtensions
                                                     SEQUENCE {
                    sRNC-RelocationInfo-v3a0ext
                                                         SRNC-RelocationInfo-v3a0ext-IEs,
                    v3b0NonCriticalExtensions
                                                         SEQUENCE {
                        sRNC-RelocationInfo-v3b0ext
                                                             SRNC-RelocationInfo-v3b0ext-IEs,
                          - Reserved for future non critical extension
                        nonCriticalExtensions
                                                        SEQUENCE {} OPTIONAL
                            OPTIONAL
                        OPTIONAL
            }
                    OPTIONAL
                OPTIONAL
   },
   criticalExtensions
                                    SEQUENCE {}
}
SRNC-RelocationInfo-r3-IEs ::=
                                            SEQUENCE {
    -- Non-RRC IEs
        stateOfRRC
                                        StateOfRRC,
        stateOfRRC-Procedure
                                        StateOfRRC-Procedure,
    -- Ciphering related information IEs
    -- If the extension v380 is included use the extension for the ciphering status per CN domain
       cipheringStatus
                                        CipheringStatus,
        calculationTimeForCiphering
                                        CalculationTimeForCiphering
                                                                             OPTIONAL,
        cipheringInfoPerRB-List
                                        CipheringInfoPerRB-List
                                                                             OPTIONAL,
        count-C-List
                                        COUNT-C-List
                                                                             OPTIONAL,
        integrityProtectionStatus
                                        IntegrityProtectionStatus,
        srb-SpecificIntegrityProtInfo
                                        SRB-SpecificIntegrityProtInfoList,
        implementationSpecificParams
                                        ImplementationSpecificParams
                                                                             OPTIONAL,
    -- User equipment IEs
       u-RNTI
                                        U-RNTI,
        c-RNTI
                                        C-RNTI
                                                                             OPTIONAL.
        ue-RadioAccessCapability
                                        UE-RadioAccessCapability,
       ue-Positioning-LastKnownPos
                                        UE-Positioning-LastKnownPos
                                                                             OPTIONAL,
    -- Other IEs
       ue-RATSpecificCapability
                                        InterRAT-UE-RadioAccessCapabilityList
                                                                                OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                        URA-Identity
                                                                             OPTIONAL,
    -- Core network IEs
        cn-CommonGSM-MAP-NAS-SysInfo
                                        NAS-SystemInformationGSM-MAP,
        cn-DomainInformationList
                                        CN-DomainInformationList
                                                                             OPTIONAL,
    -- Measurement IEs
       ongoingMeasRepList
                                        OngoingMeasRepList
                                                                             OPTIONAL,
    -- Radio bearer IEs
        predefinedConfigStatusList
                                        PredefinedConfigStatusList,
        srb-InformationList
                                        SRB-InformationSetupList,
       rab-InformationList
                                        RAB-InformationSetupList
                                                                             OPTIONAL,
    -- Transport channel IEs
                                        UL-CommonTransChInfo
       ul-CommonTransChInfo
                                                                             OPTIONAL.
        ul-TransChInfoList
                                        UL-AddReconfTransChInfoList
                                                                             OPTIONAL,
        modeSpecificInfo
                                        CHOICE {
            fdd
                                            SEQUENCE {
                cpch-SetID
                                                 CPCH-Set.ID
                                                                             OPTIONAL.
                transChDRAC-Info
                                                 DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                            NULL
        dl-CommonTransChInfo
                                        DL-CommonTransChInfo
                                                                             OPTIONAL,
       dl-TransChInfoList
                                        DL-AddReconfTransChInfoList
                                                                             OPTIONAL,
    -- Measurement report
                                                                             OPTIONAL
       measurementReport
                                        MeasurementReport
}
SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
     - Ciphering related information IEs
        cn-DomainIdentity
                                             CN-DomainIdentity.
        cipheringStatusList
                                            CipheringStatusList
}
SRNC-RelocationInfo-v390ext-IEs ::= SEOUENCE {
        cn-DomainInformationList-v390ext
                                            {\tt CN-DomainInformationList-v390ext}
                                                                                      OPTIONAL,
        ue-RadioAccessCapability-v370ext
                                            UE-RadioAccessCapability-v370ext
                                                                                      OPTIONAL,
        ue-RadioAccessCapability-v380ext
                                            UE-RadioAccessCapability-v380ext
                                                                                     OPTIONAL,
        dl-PhysChCapabilityFDD-v380ext
                                            DL-PhysChCapabilityFDD-v380ext,
        failureCauseWithProtErr
                                            FailureCauseWithProtErr
                                                                                     OPTIONAL
```

```
}
SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
        cipheringInfoForSRB1-v3a0ext CipheringInfoPerRB-List-v3a0ext, ue-RadioAccessCapability-v3a0ext UE-RadioAccessCapability-v3a0ext
                                                                                             OPTIONAL,
         -- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
         -- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
                                                START-Value
        startValueForCiphering-v3a0ext
}
SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
         -- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
        cn-DomainIdentity
                                           CN-DomainIdentity,
         -- the remaining start values are contained in IE startValueForCiphering-v3b0ext
        startValueForCiphering-v3b0ext
                                                STARTList2
}
                                        SEQUENCE (SIZE (2..maxCNdomains)) OF
STARTList2 ::=
                                            STARTSingle
CipheringInfoPerRB-List-v3a0ext ::= SEQUENCE {
         dl-UM-SN
                                           BIT STRING (SIZE (7))
CipheringStatusList ::=
                                       SEQUENCE (SIZE (1..maxCNdomains)) OF
                                            CipheringStatusCNdomain
CipheringStatusCNdomain ::=
                                       SEQUENCE {
        cn-DomainIdentity
                                           CN-DomainIdentity,
        cipheringStatus
                                            CipheringStatus
}
-- IE definitions
CalculationTimeForCiphering ::=
                                        SEOUENCE {
    cell-Id
                                            CellIdentity,
                                            INTEGER (0..4095)
}
CipheringInfoPerRB ::=
                                        SEQUENCE {
                                            BIT STRING (SIZE (20..25)),
    ul-HFN
                                            BIT STRING (SIZE (20..25))
}
-- TABULAR: CipheringInfoPerRB-List, multiplicity value numberOfRadioBearers
-- has been replaced with maxRB.
-- The order of occurrence of the IE "Ciphering info per radio bearer" in the
-- "SRNS Relocation Info" IE is the same as in the IE "Signalling RB information
-- list" and the RBs in the IE "RAB information list". The signalling RBs are supposed
-- to be listed first. Only UM and AM RBs that are ciphered are listed here
CipheringInfoPerRB-List ::=
                                        SEQUENCE (SIZE (1..maxRB)) OF
                                            CipheringInfoPerRB
CipheringStatus ::=
                                        ENUMERATED {
                                            started, notStarted }
CN-DomainInformation-v390ext ::=
                                            SEQUENCE {
    cn-DRX-CycleLengthCoeff
                                            CN-DRX-CycleLengthCoefficient
CN-DomainInformationList-v390ext ::=
                                            SEQUENCE (SIZE (1..maxCNdomains)) OF
                                            CN-DomainInformation-v390ext
COUNT-C-List ::=
                                            SEQUENCE (SIZE (1..maxCNdomains)) OF
                                            COUNT-CSingle
COUNT-CSingle ::=
                                            SEQUENCE {
    cn-DomainIdentity
                                            CN-DomainIdentity,
    count-C
                                            BIT STRING (SIZE (32))
ImplementationSpecificParams ::=
                                       BIT STRING (SIZE (1..512))
                                        ENUMERATED {
IntegrityProtectionStatus ::=
                                            started, notStarted }
```

```
CHOICE {
MeasurementCommandWithType ::=
                                           MeasurementType,
    setup
    modify
                                           NULL,
    release
                                           NULL
}
OngoingMeasRep ::=
                                       SEQUENCE {
    measurementIdentity
                                 MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType
    measurementCommandWithType
                                           MeasurementCommandWithType,
    measurementReportingMode MeasurementReportingMode additionalMeasurementID-List AdditionalMeasurementID-List
                                                                                  OPTIONAL,
                                                                                  OPTTONAT.
}
OngoingMeasRepList ::=
                                       SEQUENCE (SIZE (1..maxNoOfMeas)) OF
                                           OngoingMeasRep
SRB-SpecificIntegrityProtInfo ::=
                                      SEQUENCE {
    ul-RRC-HFN
                                           BIT STRING (SIZE (28)),
    dl-RRC-HFN
                                           BIT STRING (SIZE (28)),
    ul-RRC-SequenceNumber
                                           RRC-MessageSequenceNumber,
    dl-RRC-SequenceNumber
                                           RRC-MessageSequenceNumber
{\tt SRB-SpecificIntegrityProtInfoList} \ ::= \ {\tt SEQUENCE} \ ({\tt SIZE} \ ({\tt 4..maxSRBsetup})) \ {\tt OF}
                                           SRB-SpecificIntegrityProtInfo
StateOfRRC ::=
                                       ENUMERATED {
                                           cell-DCH, cell-FACH,
                                           cell-PCH, ura-PCH }
StateOfRRC-Procedure ::=
                                       ENUMERATED {
                                           awaitNoRRC-Message,
                                           awaitRB-ReleaseCompleteawaitRRC-ConnectionRe-
establishmentComplete,
                                           awaitRB-SetupComplete,
                                           awaitRB-ReconfigurationComplete,
                                           await Transport CH-Reconfiguration Complete,\\
                                           await \verb"PhysicalCH-ReconfigurationComplete",
                                           awaitActiveSetUpdateComplete,
                                           awaitHandoverComplete,
                                           sendCellUpdateConfirm,
                                           sendUraUpdateConfirm,
                                           {\tt sendRrcConnectionReestablishment},
                                           otherStates
}
UE-Positioning-LastKnownPos ::=
                                       SEQUENCE {
                                           INTEGER (0..4095),
        sfn
        cell-id
                                           CellIdentity,
        positionEstimate
                                           PositionEstimate
}
END
```

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation.

Direction: source RAT→target RNC

Information Element/Group	Need	Multi	Type and	Semantics description
Name			reference	
Non RRC IEs	MD		DDC state	
>State of RRC	MP		RRC state	
			indicator,	
Ctata of DDC procedure	MP		10.3.3.35a Enumerated	
>State of RRC procedure	IVIP		(await no	
			RRC	
			message,	
			Complete,	
			await RB	
			Release	
			Complete,	
			await RB	
			Setup	
			Complete,	
			await RB	
			Reconfigurat	
			ion	
			Complete,	
			await RB	
			Release	
			Complete,	
			await	
			Transport	
			CH	
			Reconfigurat	
			ion	
			Complete,	
			await	
			Physical CH Reconfigurat	
			ion	
			Complete,	
			await Active	
			Set Update	
			Complete,	
			await	
			Handover	
			Complete,	
			send Cell	
			Update	
			Confirm,	
			send URA	
			Update	
			Confirm,	
			, others)	
Ciphering related information				
>Ciphering status for each CN	MP	<1 to		
domain		maxCNDo		
0)11	MD	mains>	ON :	
>>CN domain identity	MP		CN domain	
			identity	
	MD		10.3.1.1	
>>Ciphering status	MP		Enumerated(
			Not started,	
CTART	MD		Started)	OTABT walk of the
>>START	MP		START	START value to be used in
			10.3.3.38	this CN domain.

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>Latest configured CN domain	MP		CN domain	Value contained in the variable
- Latest sormigation of the annual to			identity 10.3.1.1	of the same name.
>Calculation time for ciphering related information	CV- Ciphering			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(040 95)	
>COUNT-C list	CV- Ciphering	1 to <maxcndo mains></maxcndo 	,	COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxrb></maxrb>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV-SRB1		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
Integrity protection related information				,
>Integrity protection status	MP		Enumerated(Not started, Started)	
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxsrbs etup></maxsrbs 		
>>Uplink RRC HFN	MP		Bit string (28)	
>>Downlink RRC HFN	MP		Bit string (28)	
>>Uplink RRC Message sequence number	MP		Integer (0 15)	
>>Downlink RRC Message sequence number	MP		Integer (0 15)	
>Implementation specific parameters	OP		Bit string (1512)	
RRC IEs				
UE Information elements	ļ			
>U-RNTI	MP		U-RNTI 10.3.3.47	
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access capability 10.3.3.42	
>UE radio access capability extension	OP		UE radio access capability extension	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description	
			10.3.3.42a		
>Last known UE position	OP				
>>SFN	MP		Integer (04095)	Time when position was estimated	
>>Cell ID	MP		Cell identity; 10.3.2.2	Indicates the cell, the SFN is valid for.	
>>CHOICE Position estimate	MP				
>>>Ellipsoid Point			Ellipsoid Point; 10.3.8.4a		
>>>Ellipsoid point with uncertainty circle			Ellipsoid point with uncertainty circle 10.3.8.4d		
>>>Ellipsoid point with uncertainty ellipse			Ellipsoid point with uncertainty ellipse 10.3.8.4e		
>>>Ellipsoid point with altitude			Ellipsoid point with altitude 10.3.8.4b		
>>>Ellipsoid point with altitude and uncertainty ellipsoid			Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c		
Other Information elements					
>UE system specific capability	OP	1 to <maxsyste mCapabilit y></maxsyste 			
>>Inter-RAT UE radio access capability	MP		Inter-RAT UE radio access capability 10.3.8.7		
UTRAN Mobility Information elements					
>URA Identifier	OP		URA identity 10.3.2.6		
CN Information Elements					
>CN common GSM-MAP NAS system information	MP		NAS system information (GSM-MAP) 10.3.1.9		
>CN domain related information	OP	1 to <maxcndo mains></maxcndo 		CN related information to be provided for each CN domain	
>>CN domain identity	MP				
>>CN domain specific GSM- MAP NAS system info	MP		NAS system information (GSM-MAP) 10.3.1.9		
>>CN domain specific DRX cycle length coefficient	MP		CN domain specific DRX cycle length coefficient, 10.3.3.6		

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Measurement Related Information elements				
>For each ongoing measurement reporting	OP	1 to <maxnoof Meas></maxnoof 		
>>Measurement Identity	MP		Measuremen t identity 10.3.7.48	
>>Measurement Command	MP		Measuremen t command 10.3.7.46	
>>Measurement Type	CV-Setup		Measuremen t type 10.3.7.50	
>>Measurement Reporting Mode	OP		Measuremen t reporting mode 10.3.7.49	
>>Additional Measurements list	OP		Additional measuremen ts list 10.3.7.1	
>>CHOICE Measurement	OP			
>>>Intra-frequency	0.0			
>>>>Intra-frequency cell info	OP		Intra- frequency cell info list 10.3.7.33	
>>>>Intra-frequency measurement quantity	OP		Intra- frequency measuremen t quantity 10.3.7.38	
>>>>Intra-frequency reporting quantity	OP		Intra- frequency reporting quantity 10.3.7.41	
>>>Reporting cell status	OP		Reporting cell status 10.3.7.61	
>>>Measurement validity	OP		Measuremen t validity 10.3.7.51	
>>>CHOICE report criteria	OP			
>>>>Intra-frequency measurement reporting criteria			Intra- frequency measuremen t reporting criteria 10.3.7.39	
>>>>Periodical reporting			Periodical reporting criteria 10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-frequency >>>>Inter-frequency cell info	OP		Inter- frequency cell info list 10.3.7.13	
>>>Inter-frequency measurement quantity	OP		Inter- frequency measuremen	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			t quantity	
	0.0		10.3.7.18	
>>>Inter-frequency reporting	OP		Inter- frequency	
quantity			reporting	
			quantity	
			10.3.7.21	
>>>Reporting cell status	OP		Reporting	
. 0			cell status	
			10.3.7.61	
>>>Measurement validity	OP		Measuremen	
			t validity	
0110105	0.5		10.3.7.51	
>>>CHOICE report criteria	OP		1-4	
>>>>Inter-frequency measurement			Inter-	
reporting criteria			frequency measuremen	
reporting criteria			t reporting	
			criteria	
			10.3.7.19	
>>>>Periodical reporting			Periodical	
. •			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-RAT	0.5		1. DAT	
>>>Inter-RAT cell info	OP		Inter-RAT	
			cell info list	
>>>Inter-RAT measurement	OP		10.3.7.23 Inter-RAT	
quantity			measuremen	
quartity			t quantity	
			10.3.7.29	
>>>Inter-RAT reporting	OP		Inter-RAT	
quantity			reporting	
			quantity	
B	0.5		10.3.7.32	
>>>Reporting cell status	OP		Reporting cell status	
			10.3.7.61	
>>>Measurement validity	OP		Measuremen	
>>>ivicasurement validity			t validity	
			10.3.7.51	
>>>>CHOICE report criteria	OP			
>>>>Inter-RAT measurement			Inter-RAT	
reporting criteria			measuremen	
			t reporting	
			criteria	
Dariadical reporting	1		10.3.7.30 Periodical	
>>>>Periodical reporting			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Traffic Volume				
>>>>Traffic volume	OP		Traffic	
measurement	1		volume	
Object				
Object			measuremen	
Object			t object	
	OB		t object 10.3.7.70	
>>>>Traffic volume	OP		t object 10.3.7.70 Traffic	
	OP		t object 10.3.7.70	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			10.3.7.71	
>>>>Traffic volume reporting	OP		Traffic	
quantity			volume	
			reporting	
			quantity	
			10.3.7.74	
>>>>CHOICE report criteria	OP			
>>>>Traffic volume			Traffic	
measurement			volume	
reporting criteria			measuremen	
			t reporting	
			criteria	
			10.3.7.72	
>>>>Periodical reporting			Periodical	
1 3			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Quality	1			
>>>Quality measurement	OP		Quality	
Object]		measuremen	
Sbject			t object	
>>>CHOICE report criteria	OP		t object	
>>>>CHOICE report criteria >>>>Quality measurement	01		Quality	
reporting criteria			measuremen	
			t reporting	
			criteria	
			10.3.7.58	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>UE internal	0.0			
>>>UE internal measurement	OP		UE internal	
quantity			measuremen	
			t quantity	
			10.3.7.79	
>>>UE internal reporting	OP		UE internal	
quantity			reporting	
			quantity	
			10.3.7.82	
>>>CHOICE report criteria	OP			
>>>>UE internal measurement			UE internal	
reporting criteria			measuremen	
			t reporting	
			criteria	
			10.3.7.80	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>UE positioning				
>>>LCS reporting quantity	OP		LCS	
. 0 1			reporting	
			quantity	
			10.3.7.111	
	i			
>>>>CHOICE report criteria	OP			
>>>>CHOICE report criteria	OP		LCS	
>>>>CHOICE report criteria >>>>>LCS reporting criteria	OP		LCS reporting	
>>>>CHOICE report criteria >>>>>LCS reporting criteria	OP		reporting	
>>>>CHOICE report criteria >>>>>LCS reporting criteria	OP			

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			reporting criteria 10.3.7.53	
>>>>No reporting Radio Bearer Information				
Elements				
>Predefined configuration status information	OP		Predefined configuration status information 10.3.4.5a	
>Signalling RB information list	MP	1 to <maxsrbs etup></maxsrbs 		For each signalling radio bearer
>>Signalling RB information	MP		Signalling RB information to setup 10.3.4.24	
>RAB information list	OP	1 to <maxrabs etup></maxrabs 		Information for each RAB
>>RAB information	MP		RAB information to setup 10.3.4.10	
Transport Channel				
Information Elements Uplink transport channels				
>UL Transport channel information common for all transport channels	OP		UL Transport channel information common for all transport channels 10.3.5.24	
>UL transport channel information list	OP	1 to <maxtrch ></maxtrch 		
>>UL transport channel information	MP		Added or reconfigured UL TrCH information 10.3.5.2	
>CHOICE mode	OP			
>>FDD	OD		CDCH	
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5	
>>>Transport channel information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>DRAC static information	MP	-	DRAC static information 10.3.5.7	
>>TDD				(no data)
>DL Transport channel information common for all transport channels	OP		DL Transport channel information common for all transport channels 10.3.5.6	
>DL transport channel	OP	1 to		

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
information list		<maxtrch></maxtrch>		
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1	
>Measurement report	OP		MEASUREM ENT REPORT 10.2.17	
Other Information elements				
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation			
MaxNoOfMeas	Maximum number of active measurements, upper			
	limit 16			

Condition	Explanation
Setup	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
Ciphering	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
IP	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
ProtErr	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
SRB1	The IE is mandatory present for RB1. Otherwise it is not needed.

3GPP TSG-RAN2 Meeting #31 Stockholm-Arlanda, Sweden, August 19 - 23, 2002

		,	,	•	,						
			(CHANGE	REC	QUE	ST				CR-Form-v7
*		25.331	CR	1610	жrev	-	¥	Current vers	ion:	4.5.0	
For <u>HELP</u> of	n u	sing this fo	rm, see	e bottom of this	s page c	r look	at the	pop-up text	over t	the # syn	nbols.
Proposed chang	ge a	affects:	UICC a	apps#	ME	Rad	dio Ac	cess Netwo	k X	Core Ne	twork
Title:	Ж	Clarificat	ion of S	SRNS Relocati	ion Info						
Source:	\mathfrak{H}	TSG-RAI	N WG2								
Work item code.	: #	TEI						Date: ♯	20/0	08/2002	
Category:	ж	Α						Release: ₩	Rel-	-4	
		F (con A (con B (ad C (fur D (ed	rrection) rrespondition of actional itorial m planatio	ds to a correction feature), modification of the total financial modification of the above	on in an e feature)			Use <u>one</u> of 2) R96 R97 R98 R99 Rel-4 Rel-5	(GSM (Relea (Relea (Relea	Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4)	eases:

Reason for change:

The parameter value "await RB Release Complete" is not included in ASN.1 of SRNS Relocation Info although it is included in the tabular. This value would be needed when RB release procedure is used to switch the UE to CELL_FACH and trigger SRNS relocation upon the following cell update message.

Rel-6

(Release 6)

2. With the current standard in the IE "SRNS Relocation info" in the list "Ciphering info per radio bearer" there should be an IE "RB Id" giving the RB identity of the radio bearer for which this information is valid.

Summary of change: ₩

- 1. The parameter value "awaitRRC-ConnectionRe-establishmentComplete" is redefined as "awaitRB-ReleaseComplete"
- 2. It is clarified that the order of occurrence of the IE "Ciphering info per radio bearer" in the "SRNS Relocation Info" IE is the same as in the IE "Signalling RB information list" and the RBs in the IE "RAB information list". The signalling RBs are supposed to be listed first. Only UM and AM RBs that are ciphered are supposed to be listed.

Isolated Impact analysis

No impact on a UE implementations because neither procedure nor parameter related to UE is changed.

It would not have any impact on UTRAN implementations behaving like specified in this CR, a UTRAN implementation that does not behave according this CR may not be able to succeed this type of relocation when the UE is switched to CELL FACH.

Consequences if not approved:

SRNS Relocation in CELL_FACH triggered by a RB Release will not work.

Clauses affected: # 11.5, 14.12.4.2

Other specs affected:	æ	Y N X X	Other core specifications Test specifications O&M Specifications	ж	
Other comments:	æ				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

11.5 RRC information between network nodes

Internode-definitions DEFINITIONS AUTOMATIC TAGS ::=

```
BEGIN
IMPORTS
    HandoverToUTRANCommand,
    MeasurementReport,
    PhysicalChannelReconfiguration,
    RadioBearerReconfiguration,
    RadioBearerRelease,
    RadioBearerSetup,
    RRC-FailureInfo-r3-IEs.
    TransportChannelReconfiguration
FROM PDU-definitions
-- Core Network IEs :
    CN-DomainIdentity,
    CN-DomainInformationList,
    CN-DRX-CycleLengthCoefficient,
   NAS-SystemInformationGSM-MAP,
-- UTRAN Mobility IEs :
    CellIdentity,
    URA-Identity
-- User Equipment IEs :
    C-RNTI,
    DL-PhysChCapabilityFDD-v380ext,
    FailureCauseWithProtErr,
    RRC-MessageSequenceNumber,
    STARTList,
    STARTSingle,
    START-Value,
    U-RNTI,
    UE-RadioAccessCapability,
    {\tt UE-RadioAccessCapability-v370ext}\,,
    UE-RadioAccessCapability-v380ext,
    UE-RadioAccessCapability-v3a0ext,
    UE-RadioAccessCapability-v4xyext,
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RAB-Identity,
    SRB-InformationSetupList,
-- Transport Channel IEs :
    CPCH-SetID,
    DL-CommonTransChInfo,
    DL-AddReconfTransChInfoList,
    DRAC-StaticInformationList,
    UL-CommonTransChInfo,
    UL-AddReconfTransChInfoList,
-- Measurement IEs :
    MeasurementIdentity,
    MeasurementReportingMode,
    MeasurementType,
    MeasurementType-r4,
    AdditionalMeasurementID-List,
    PositionEstimate,
    UE-Positioning-IPDL-Parameters-TDD-r4-ext,
-- Other IEs :
InterRAT-UE-RadioAccessCapabilityList
FROM InformationElements
    maxCNdomains,
    maxNoOfMeas,
    maxRB.
    maxSRBsetup
FROM Constant-definitions
-- Part 1: Class definitions similar to what has been defined in 11.1 for RRC messages
-- Information that is tranferred in the same direction and across the same path is grouped
```

```
__ ****************
-- RRC information, to target RNC
************
-- RRC Information to target RNC sent either from source RNC or from another RAT
ToTargetRNC-Container ::= CHOICE {
   interRATHandoverInfo
                                     InterRATHandoverInfoWithInterRATCapabilities-r3,
   srncRelocation
                                     SRNC-RelocationInfo-r3,
   extension
                                     NULL
}
__ ****************
-- RRC information, target RNC to source RNC
Target-RNC-ToSourceRNC-Container ::= CHOICE {
                              RadioBearerSetup,
   radioBearerSetup
   radioBearerReconfiguration RadioBearerReconfiguration, radioBearerRelease RadioBearerRelease, transportChannelReconfiguration physicalChannelReconfiguration physicalChannelReconfiguration rrc-FailureInfo RRC-FailureInfo-r3-IEs,
   extension
                                     NULL
}
-- Part 2: Container definitions, similar to the PDU definitions in 11.2 for RRC messages
-- In alphabetical order
__ ***************
-- Handover to UTRAN information
__ **************************
InterRATHandoverInfoWithInterRATCapabilities-r3 ::= CHOICE {
                                 SEQUENCE {
       -- IE InterRATHandoverInfoWithInterRATCapabilities-r3-IEs also
       -- includes non critical extensions
       interRATHandoverInfo-r3 InterRATHandoverInfoWithInterRATCapabilities-r3-IEs,
       v390NonCriticalExtensions
                                         SEQUENCE {
           interRATHandoverInfoWithInterRATCapabilities-v390ext
   InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs,
           -- Reserved for future non critical extension
           }
              OPTIONAL
   criticalExtensions
                                 SEQUENCE {}
InterRATHandoverInfoWithInterRATCapabilities-r3-IEs::=
                                                        SEQUENCE {
       -- The order of the IEs may not reflect the tabular format
       -- but has been chosen to simplify the handling of the information in the BSC
       Other IEs
                                    InterRAT-UE-RadioAccessCapabilityList
       ue-RATSpecificCapability
       -- interRATHandoverInfo, Octet string is used to obtain 8 bit length field prior to
       -- actual information. This makes it possible for BSS to transparently handle information
       -- received via GSM air interface even when it includes non critical extensions.
       -- The octet string shall include the InterRATHandoverInfo information
       -- The BSS can re-use the 04.18 length field received from the MS
       interRATHandoverInfo
                                     OCTET STRING (SIZE (0..255))
}
InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs := SEQUENCE {
   -- User equipment IEs
       failureCauseWithProtErr
                                         FailureCauseWithProtErr
                                                                               OPTIONAL
}
__ ****************
-- SRNC Relocation information
__ ***************
```

```
SRNC-RelocationInfo-r3 ::= CHOICE {
                                     SEQUENCE {
   r3
        sRNC-RelocationInfo-r3
                                        SRNC-RelocationInfo-r3-IEs,
            v380NonCriticalExtensions
                                                SEQUENCE {
                sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
                 - Reserved for future non critical extension
                v390NonCriticalExtensions
                                                     SEOUENCE {
                    sRNC-RelocationInfo-v390ext
                                                         SRNC-RelocationInfo-v390ext-IEs,
                    v3a0NonCriticalExtensions
                                                         SEQUENCE {
                        sRNC-RelocationInfo-v3a0ext
                                                             SRNC-RelocationInfo-v3a0ext-IEs,
                                                             SEQUENCE {
    SRNC-RelocationInfo-v3b0ext-IEs,
                        v3b0NonCriticalExtensions
                            sRNC-RelocationInfo-v3b0ext
                            v4xyNonCriticalExtensions
                                                                 SEQUENCE {
                                sRNC-RelocationInfo-v4xyext
                                                                     SRNC-RelocationInfo-v4xyext-IEs,
                                -- Reserved for future non critical extension
                                nonCriticalExtensions
                                                                 SEQUENCE {} OPTIONAL
                                    OPTIONAL
                                OPTIONAL
                            OPTIONAL
                        OPTIONAL
            }
                    OPTIONAL
    criticalExtensions
                                    SEQUENCE { }
}
SRNC-RelocationInfo-r3-IEs ::=
                                    SEQUENCE {
    -- Non-RRC IEs
        stateOfRRC
                                         StateOfRRC,
                                        StateOfRRC-Procedure,
        stateOfRRC-Procedure
    -- Ciphering related information IEs
    -- If the extension v380 is included use the extension for the ciphering status per CN domain
        cipheringStatus
                                        CipheringStatus,
                                         CalculationTimeForCiphering
                                                                              OPTIONAL.
        calculationTimeForCiphering
        cipheringInfoPerRB-List
                                         CipheringInfoPerRB-List
                                                                              OPTIONAL.
        count-C-List
                                         COUNT-C-List
                                                                              OPTIONAL.
        integrityProtectionStatus
                                         IntegrityProtectionStatus,
        srb-SpecificIntegrityProtInfo
                                        SRB-SpecificIntegrityProtInfoList.
        implementationSpecificParams
                                        ImplementationSpecificParams
                                                                              OPTIONAL,
    -- User equipment IEs
        u-RNTI
                                         U-RNTI,
        C-RNTT
                                        C-RNTI
                                                                              OPTIONAL,
        ue-RadioAccessCapability
                                        UE-RadioAccessCapability,
        ue-Positioning-LastKnownPos
                                        UE-Positioning-LastKnownPos
                                                                              OPTIONAL,
    -- Other IEs
       ue-RATSpecificCapability
                                        InterRAT-UE-RadioAccessCapabilityList
                                                                                 OPTIONAL,
     - UTRAN mobility IEs
        ura-Identity
                                        URA-Identity
                                                                              OPTIONAL.
    -- Core network IEs
        cn-CommonGSM-MAP-NAS-SysInfo
                                        NAS-SystemInformationGSM-MAP,
        cn-DomainInformationList
                                        CN-DomainInformationList
                                                                              OPTIONAL,
    -- Measurement IEs
        ongoingMeasRepList
                                        OngoingMeasRepList
                                                                              OPTIONAL,
    -- Radio bearer IEs
       predefinedConfigStatusList
                                        PredefinedConfigStatusList,
        srb-InformationList
                                         SRB-InformationSetupList,
        rab-InformationList
                                        RAB-InformationSetupList
                                                                              OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo
                                        UL-CommonTransChInfo
                                                                              OPTIONAL,
        ul-TransChInfoList
                                        UL-AddReconfTransChInfoList
                                                                              OPTIONAL.
        modeSpecificInfo
                                        CHOICE {
            fdd
                                             SEQUENCE {
                cpch-SetID
                                                 CPCH-SetID
                                                                              OPTIONAL,
                transChDRAC-Info
                                                 DRAC-StaticInformationList OPTIONAL
            },
            tdd
                                            NULL
        dl-CommonTransChInfo
                                        DL-CommonTransChInfo
                                                                              OPTIONAL,
        dl-TransChInfoList
                                        DL-AddReconfTransChInfoList
                                                                              OPTIONAL,
    -- Measurement report
                                         MeasurementReport
        measurementReport
                                                                              OPTIONAL ,
        nonCriticalExtensions
                                        SEQUENCE {
            -- In case of TDD only up-Ipdl-Parameters-TDD is present, otherwise
            -- this IE is absent
            up-Ipdl-Parameters-TDD
                                            UE-Positioning-IPDL-Parameters-TDD-r4-ext
                                                                                          OPTIONAL,
        -- Extension mechanism for non- release4 information
            nonCriticalExtensions
                                             SEQUENCE {}
                                                                                          OPTIONAL
                                                                             OPTIONAL
```

```
}
SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
    -- Ciphering related information IEs
        cn-DomainIdentity
                                            CN-DomainIdentity,
        cipheringStatusList
                                            CipheringStatusList
}
SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
        cn-DomainInformationList-v390ext
                                            {\tt CN-DomainInformationList-v390ext}
                                                                                     OPTIONAL,
        ue-RadioAccessCapability-v370ext
                                            UE-RadioAccessCapability-v370ext
                                                                                     OPTIONAL,
        ue-RadioAccessCapability-v380ext
                                            UE-RadioAccessCapability-v380ext
                                                                                     OPTIONAL.
        dl-PhysChCapabilityFDD-v380ext
                                            DL-PhysChCapabilityFDD-v380ext,
        failureCauseWithProtErr
                                            FailureCauseWithProtErr
                                                                                     OPTIONAL
}
SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
        -- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
        -- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
        startValueForCIphering-v3a0ext
                                            START-Value,
                                            CipheringInfoForSRB1-v3a0ext,
        cipheringInfoForSRB1-v3a0ext
        ue-RadioAccessCapability-v3a0ext
                                            UE-RadioAccessCapability-v3a0ext
                                                                                     OPTIONAL
}
SRNC-RelocationInfo-v3b0ext-IEs ::= SEQUENCE {
        -- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
        cn-DomainIdentity
                                       CN-DomainIdentity,
        -- the remaining start values are contained in IE startValueForCiphering-v3b0ext
        startValueForCiphering-v3b0ext
                                            STARTList2
                                                                                     OPTIONAL
}
STARTList2 ::=
                                    SEQUENCE (SIZE (2..maxCNdomains)) OF
                                        STARTSingle
SRNC-RelocationInfo-v4xyext-IEs ::= SEQUENCE {
        ue-RadioAccessCapability-v4xyext UE-RadioAccessCapability-v4xyext
}
CipheringInfoForSRB1-v3a0ext ::= SEQUENCE {
                                            BIT STRING (SIZE (7))
CipheringStatusList ::=
                                SEQUENCE (SIZE (1..maxCNdomains)) OF
                                        CipheringStatusCNdomain
CipheringStatusCNdomain ::=
                                        SEQUENCE {
        cn-DomainIdentity
                                        CN-DomainIdentity,
        cipheringStatus
                                        CipheringStatus
}
SRNC-RelocationInfo-r4 ::=
                                   SEQUENCE {
    -- Non-RRC IEs
        stateOfRRC
                                        StateOfRRC,
        stateOfRRC-Procedure
                                        StateOfRRC-Procedure,
        cipheringStatus
                                        CipheringStatus,
        calculationTimeForCiphering
                                        CalculationTimeForCiphering
                                                                             OPTIONAL,
        cipheringInfoPerRB-List
                                        CipheringInfoPerRB-List
                                                                             OPTIONAL,
        integrityProtectionStatus
                                        IntegrityProtectionStatus,
        srb-SpecificIntegrityProtInfo
                                        SRB-SpecificIntegrityProtInfoList,
        implementationSpecificParams
                                        ImplementationSpecificParams
                                                                            OPTIONAL,
    -- User equipment IEs
       u-RNTI
                                        U-RNTI,
        c-RNTI
                                                                            OPTIONAL,
                                        C-RNTI
        ue-RadioAccessCapability
                                        UE-RadioAccessCapability,
        ue-Positioning-LastKnownPos
                                        UE-Positioning-LastKnownPos
                                                                            OPTIONAL,
    -- Other IEs
       ue-RATSpecificCapability
                                        InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                        URA-Identity
                                                                             OPTIONAL,
    -- Core network IEs
        cn-CommonGSM-MAP-NAS-SysInfo
                                        NAS-SystemInformationGSM-MAP,
        cn-DomainInformationList
                                        CN-DomainInformationList
                                                                             OPTIONAL,
    -- Measurement IEs
        ongoingMeasRepList
                                        OngoingMeasRepList-r4
                                                                             OPTIONAL,
    -- Radio bearer IEs
       predefinedConfigStatusList
                                        PredefinedConfigStatusList,
        srb-InformationList
                                        SRB-InformationSetupList,
```

```
rab-InformationList
                                           RAB-InformationSetupList
                                                                                     OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo
                                            UL-CommonTransChInfo
                                                                                     OPTIONAL,
         ul-TransChInfoList
                                            UL-AddReconfTransChInfoList
                                                                                     OPTIONAL,
        modeSpecificInfo
                                            CHOICE {
                                                SEQUENCE {
             fdd
                  cpch-SetID
                                                     CPCH-SetID
                                                                                     OPTIONAL.
                  transChDRAC-Info
                                                     DRAC-StaticInformationList OPTIONAL
             },
             tdd
                                                 NULL
         dl-CommonTransChInfo
                                          DL-CommonTransChInfo
                                                                                     OPTIONAL.
        dl-TransChInfoList
                                            DL-AddReconfTransChInfoList
                                                                                     OPTIONAL,
    -- Measurement report
        measurementReport
                                            MeasurementReport
                                                                                     OPTIONAL,
        nonCriticalExtensions
                                            SEQUENCE {
             -- In case of TDD only up-Ipdl-Parameters-TDD is present, otherwise
             -- this IE is absent
             up-Ipdl-Parameters-TDD
                                                 UE-Positioning-IPDL-Parameters-TDD-r4-ext
                                                                                                   OPTIONAL,
         -- Extension mechanism for non- release4 information
             nonCriticalExtensions
                                                 SEQUENCE {}
                                                                                                   OPTIONAL
                                                                                     OPTIONAL
}
-- IE definitions
CalculationTimeForCiphering ::=
                                        SEQUENCE {
    cell-Id
                                             CellIdentity,
    sfn
                                             INTEGER (0..4095)
}
CipheringInfoPerRB ::=
                                        SEOUENCE {
    dl-HFN
                                            BIT STRING (SIZE (20..25)),
    ul-HFN
                                             BIT STRING (SIZE (20..25))
}
-- TABULAR: CipheringInfoPerRB-List, multiplicity value numberOfRadioBearers
-- has been replaced with maxRB.
-- The order of occurrence of the IE "Ciphering info per radio bearer" in the
-- "SRNS Relocation Info" IE is the same as in the IE "Signalling RB information
-- list" and the RBs in the IE "RAB information list". The signalling RBs are supposed
-- to be listed first. Only UM and AM RBs that are ciphered are listed here
                                        SEQUENCE (SIZE (1..maxRB)) OF
CipheringInfoPerRB-List ::=
                                             CipheringInfoPerRB
CipheringStatus ::=
                                        ENUMERATED {
                                            started, notStarted }
CN-DomainInformation-v390ext ::=
                                             SEOUENCE {
    {\tt cn-DRX-CycleLengthCoeff}
                                             CN-DRX-CycleLengthCoefficient
                                             SEQUENCE (SIZE (1..maxCNdomains)) OF
CN-DomainInformationList-v390ext ::=
                                             CN-DomainInformation-v390ext
COUNT-C-List ::=
                                             SEQUENCE (SIZE (1..maxCNdomains)) OF
                                             COUNT-CSingle
COUNT-CSingle ::=
                                             SEQUENCE {
                                             CN-DomainIdentity,
    cn-DomainIdentity
    count-C
                                             BIT STRING (SIZE (32))
ImplementationSpecificParams ::=
                                        BIT STRING (SIZE (1..512))
IntegrityProtectionStatus ::=
                                        ENUMERATED {
                                            started, notStarted }
MeasurementCommandWithType ::=
                                        CHOICE {
                                            MeasurementType,
    setup
    modify
                                             NULL,
    release
                                             NULL
}
MeasurementCommandWithType-r4 ::=
                                       CHOICE {
                                             MeasurementType-r4,
```

```
modify
                                          NULL,
                                          NULL
    release
}
OngoingMeasRep ::=
                                     SEQUENCE {
   measurementIdentity
                                MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType
    {\tt measurementCommandWithType}
                                         MeasurementCommandWithType,
    {\tt measurementReportingMode}
                                         MeasurementReportingMode
                                                                                OPTIONAL,
    additionalMeasurementID-List
                                         AdditionalMeasurementID-List
                                                                               OPTIONAL
}
OngoingMeasRep-r4 ::=
                                     SEQUENCE {
    measurementIdentity
                                 MeasurementIdentity,
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType-r4.
   measurementCommandWithType MeasurementCommandWithType-r4, measurementReportingMode MeasurementReportingMode
                                                                                OPTIONAL,
    additionalMeasurementID-List
                                        AdditionalMeasurementID-List
                                                                                OPTIONAL
}
OngoingMeasRepList ::=
                                     SEQUENCE (SIZE (1..maxNoOfMeas)) OF
                                          OngoingMeasRep
                                     SEQUENCE (SIZE (1..maxNoOfMeas)) OF
OngoingMeasRepList-r4 ::=
                                          OngoingMeasRep-r4
SRB-SpecificIntegrityProtInfo ::= SEQUENCE {
                                         BIT STRING (SIZE (28)),
    ul-RRC-HFN
    dl-RRC-HFN
                                          BIT STRING (SIZE (28)),
    ul-RRC-SequenceNumber
                                         RRC-MessageSequenceNumber,
    dl-RRC-SequenceNumber
                                         RRC-MessageSequenceNumber
{\tt SRB-SpecificIntegrityProtInfoList} \ ::= \ {\tt SEQUENCE} \ ({\tt SIZE} \ ({\tt 4..maxSRBsetup})) \ {\tt OF}
                                          SRB-SpecificIntegrityProtInfo
StateOfRRC ::=
                                      ENUMERATED {
                                          cell-DCH, cell-FACH,
                                          cell-PCH, ura-PCH }
                                     ENUMERATED {
StateOfRRC-Procedure ::=
                                          awaitNoRRC-Message,
                                          awaitRB-ReleaseCompleteawaitRRC ConnectionRe
establishmentComplete,
                                          awaitRB-SetupComplete,
                                          awaitRB-ReconfigurationComplete,
                                          awaitTransportCH-ReconfigurationComplete,
                                          awaitPhysicalCH-ReconfigurationComplete,
                                          awaitActiveSetUpdateComplete,
                                          awaitHandoverComplete,
                                          sendCellUpdateConfirm,
                                          sendUraUpdateConfirm,
                                          sendRrcConnectionReestablishment,
                                          otherStates
UE-Positioning-LastKnownPos ::=
                                     SEQUENCE {
                                         INTEGER (0..4095),
        sfn
                                          CellIdentity,
        cell-id
        positionEstimate
                                          PositionEstimate
}
END
```

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation.

Direction: source RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Non RRC IEs			Telefelice	
>State of RRC	MP		RRC state indicator, 10.3.3.35a	
>State of RRC procedure	MP		Enumerated (await no RRC message, Complete, await RB Release Complete, await RB Reconfigurat ion Complete, await Physical CH Reconfigurat ion Complete, await Transport CH Reconfigurat ion Complete, await Physical CH Reconfigurat ion Complete, await Physical CH Reconfigurat ion Complete, await Physical CH Reconfigurat ion Complete, await Complete, await Handover Complete, send Cell Update Confirm, send URA Update Confirm,	
			, others)	
Ciphering related information			,	
>Ciphering status for each CN domain	MP	<1 to maxCNDo mains>		
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>Ciphering status	MP		Enumerated(Not started, Started)	
>>START	MP		START 10.3.3.38	START value to be used in this CN domain.
>Latest configured CN domain	MP		CN domain	Value contained in the variable

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			identity 10.3.1.1	of the same name.
>Calculation time for ciphering related information	CV- Ciphering			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(040 95)	
>COUNT-C list	CV- Ciphering	1 to <maxcndo mains></maxcndo 		COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxrb></maxrb>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV-SRB1		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
Integrity protection related information				
>Integrity protection status	MP		Enumerated(Not started, Started)	
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxsrbs etup></maxsrbs 		
>>Uplink RRC HFN	MP		Bit string (28)	
>>Downlink RRC HFN	MP		Bit string (28)	
>>Uplink RRC Message sequence number	MP		Integer (0 15)	
>>Downlink RRC Message sequence number	MP		Integer (0 15)	
>Implementation specific parameters	OP		Bit string (1512)	
RRC IEs			(1012)	
UE Information elements				
>U-RNTI	MP		U-RNTI 10.3.3.47	
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access capability 10.3.3.42	
>UE radio access capability extension	OP		UE radio access capability extension 10.3.3.42a	
>Last known UE position	OP			
>>SFN	MP		Integer	Time when position was

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			(04095)	estimated
>>Cell ID	MP		Cell identity;	Indicates the cell, the SFN is
			10.3.2.2	valid for.
>>CHOICE Position estimate	MP			
>>>Ellipsoid Point			Ellipsoid	
			Point;	
			10.3.8.4a	
>>>Ellipsoid point with			Ellipsoid	
uncertainty circle			point with	
			uncertainty	
			circle	
			10.3.8.4d	
>>>Ellipsoid point with			Ellipsoid	
uncertainty ellipse			point with	
			uncertainty	
			ellipse	
			10.3.8.4e	
>>>Ellipsoid point with altitude			Ellipsoid	
			point with	
			altitude	
			10.3.8.4b	
>>>Ellipsoid point with altitude			Ellipsoid	
and uncertainty ellipsoid			point with	
			altitude and	
			uncertainty	
			ellipsoid	
			10.3.8.4c	
Other Information elements				
>UE system specific capability	OP	1 to		
		<maxsyste< td=""><td></td><td></td></maxsyste<>		
		mCapabilit		
	<u> </u>	y>		
>>Inter-RAT UE radio access	MP		Inter-RAT	
capability			UE radio	
			access	
			capability	
LITE AND			10.3.8.7	
UTRAN Mobility Information elements				
>URA Identifier	OP		URA identity	
			10.3.2.6	
CN Information Elements				
>CN common GSM-MAP NAS	MP		NAS system	
system information			information	
•			(GSM-MAP)	
			10.3.1.9	
>CN domain related information	OP	1 to		CN related information to be
		<maxcndo< td=""><td></td><td>provided for each CN domain</td></maxcndo<>		provided for each CN domain
	<u> </u>	mains>		
>>CN domain identity	MP			
>>CN domain specific GSM-	MP		NAS system	
MAP NAS system info			information	
•			(GSM-MAP)	
	<u> </u>		10.3.1.9	
>>CN domain specific DRX	MP		CN domain	
cycle length coefficient			specific DRX	
<u>.</u>			cycle length	
			coefficient,	
	<u> </u>	<u></u>	10.3.3.6	
Measurement Related				
Information elements				
>For each ongoing	OP	1 to		
measurement reporting		<maxnoof< td=""><td></td><td></td></maxnoof<>		
	1	Meas>		
>>Measurement Identity	MP		Measuremen	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			t identity 10.3.7.48	
>>Measurement Command	MP		Measuremen	
			t command	
			10.3.7.46	
>>Measurement Type	CV-Setup		Measuremen	
			t type	
			10.3.7.50	
>>Measurement Reporting	OP		Measuremen	
Mode			t reporting	
			mode	
			10.3.7.49	
>>Additional Measurements list	OP		Additional	
			measuremen	
			ts list	
			10.3.7.1	
>>CHOICE Measurement	OP			
>>>Intra-frequency				
>>>Intra-frequency cell info	OP		Intra-	
•			frequency	
			cell info list	
			10.3.7.33	
>>>Intra-frequency	OP		Intra-	
measurement			frequency	
quantity			measuremen	
,			t quantity	
			10.3.7.38	
>>>Intra-frequency reporting	OP		Intra-	
quantity			frequency	
,			reporting	
			quantity	
			10.3.7.41	
>>>Reporting cell status	OP		Reporting	
. 3			cell status	
			10.3.7.61	
>>>Measurement validity	OP		Measuremen	
,			t validity	
			10.3.7.51	
>>>>CHOICE report criteria	OP			
>>>>Intra-frequency			Intra-	
measurement			frequency	
reporting criteria			measuremen	
			t reporting	
			criteria	
	1		10.3.7.39	
>>>>Periodical reporting			Periodical	
. 5			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-frequency				
>>>Inter-frequency cell info	OP		Inter-	
•			frequency	
			cell info list	
			10.3.7.13	
>>>Inter-frequency	OP		Inter-	
measurement			frequency	
quantity			measuremen	
1			t quantity	
	1		10.3.7.18	
>>>Inter-frequency reporting	OP		Inter-	
quantity			frequency	
1			reporting	
			quantity	
	1	1	10.3.7.21	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
>>>Reporting cell status	OP		Reporting	
			cell status	
			10.3.7.61	
>>>>Measurement validity	OP		Measuremen	
			t validity	
0110105	0.0		10.3.7.51	
>>>>CHOICE report criteria	OP		1.	
>>>>Inter-frequency measurement			Inter-	
reporting criteria			frequency measuremen	
reporting criteria			t reporting	
			criteria	
			10.3.7.19	
>>>>Periodical reporting			Periodical	
a service of the serv			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Inter-RAT				
>>>>Inter-RAT cell info	OP		Inter-RAT	
			cell info list	
			10.3.7.23	
>>>Inter-RAT measurement	OP		Inter-RAT	
quantity			measuremen	
			t quantity	
			10.3.7.29	
>>>Inter-RAT reporting	OP		Inter-RAT	
quantity			reporting	
			quantity	
	0.0		10.3.7.32	
>>>Reporting cell status	OP		Reporting	
			cell status	
>>>Measurement validity	OP		10.3.7.61 Measuremen	
>>>>ivieasurement validity	OF		t validity	
			10.3.7.51	
>>>CHOICE report criteria	OP		10.0.7.01	
>>>>Inter-RAT measurement	01		Inter-RAT	
reporting criteria			measuremen	
reperming emerica			t reporting	
			criteria	
			10.3.7.30	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Traffic Volume				
>>>>Traffic volume	OP		Traffic	
measurement			volume	
Object			measuremen	
			t object	
>>>>Traffic volume	OD	 	10.3.7.70	
>>>> l rattic volume measurement	OP		Traffic volume	
quantity			measuremen	
quantity			t quantity	
			10.3.7.71	
>>>>Traffic volume reporting	OP		Traffic	
quantity]		volume	
			reporting	
			quantity	
			10.3.7.74	
>>>>CHOICE report criteria	OP			
>>>>Traffic volume			Traffic	
· · · · · · · · · · · · · · · · · · ·				

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
measurement			volume	
reporting criteria			measuremen	
			t reporting	
			criteria	
			10.3.7.72	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>Quality				
>>>Quality measurement	OP		Quality	
Object			measuremen	
,			t object	
>>>CHOICE report criteria	OP		1,	
>>>>Quality measurement	1		Quality	
reporting criteria			measuremen	
reporting enteria			t reporting	
			criteria	
			10.3.7.58	
>>>>Periodical reporting			Periodical	
>>>>Periodical reporting				
			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>UE internal				
>>>UE internal measurement	OP		UE internal	
quantity			measuremen	
			t quantity	
			10.3.7.79	
>>>UE internal reporting	OP		UE internal	
quantity			reporting	
			quantity	
			10.3.7.82	
>>>>CHOICE report criteria	OP			
>>>>UE internal measurement			UE internal	
reporting criteria			measuremen	
. •			t reporting	
			criteria	
			10.3.7.80	
>>>>Periodical reporting			Periodical	
1 3			reporting	
			criteria	
			10.3.7.53	
>>>>No reporting			NULL	
>>>UE positioning	1			
>>>LCS reporting quantity	OP		LCS	
reporting quantity			reporting	
			quantity	
			10.3.7.111	
>>>>CHOICE report criteria	OP		10.3.7.111	
	UF		1.00	
>>>>LCS reporting criteria			LCS	
			reporting	
			criteria	
B	+		10.3.7.110	
>>>>Periodical reporting			Periodical	
			reporting	
			criteria	
	1		10.3.7.53	
>>>>No reporting				
Radio Bearer Information				
Elements	<u> </u>	<u> </u>		
Elements	OP		Predefined	
	OP		Predefined configuration	

Information Element/Group Name	Need Mu		Type and reference	Semantics description		
Name			information			
>Signalling RB information list	MP	1 to <maxsrbs etup></maxsrbs 	10.3.4.5a	For each signalling radio bearer		
>>Signalling RB information	MP	310,000	Signalling RB information to setup 10.3.4.24			
>RAB information list	OP	1 to <maxrabs etup></maxrabs 		Information for each RAB		
>>RAB information	MP		RAB information to setup 10.3.4.10			
Transport Channel Information Elements						
Uplink transport channels						
>UL Transport channel information common for all transport channels	OP		UL Transport channel information common for all transport channels 10.3.5.24			
>UL transport channel information list	OP	1 to <maxtrch ></maxtrch 				
>>UL transport channel information	MP		Added or reconfigured UL TrCH information 10.3.5.2			
>CHOICE mode	OP					
>>FDD	0.0		ODOLL LID			
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5			
>>>Transport channel information for DRAC list	OP	1 to <maxtrch< td=""><td></td><td></td></maxtrch<>				
>>>>DRAC static information	MP		DRAC static information 10.3.5.7			
>>TDD	1	<u> </u>		(no data)		
Downlink transport channels	OD	-	DI To			
>DL Transport channel information common for all transport channels	OP		DL Transport channel information common for all transport channels 10.3.5.6			
>DL transport channel information list	OP	1 to <maxtrch ></maxtrch 				
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1			
>Measurement report	OP		MEASUREM ENT REPORT			

Information Element/Group Name	Need Multi		Type and reference	Semantics description
			10.2.17	
Other Information elements				
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation				
MaxNoOfMeas	Maximum number of active measurements, upper				
	limit 16				

Condition	Explanation
Setup	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
Ciphering	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
IP	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
ProtErr	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
SRB1	The IE is mandatory present for RB1. Otherwise it is not needed.

(Release 6)

Rel-6

3GPP TSG-RAN2 Meeting #31 Stockholm-Arlanda, Sweden, August 19 - 23, 2002

				_							
	CHANGE REQUEST										CR-Form-v7
*		25.331	CR	1611	ж re	/ -	ж	Current vers	sion:	5.1.0	ж
For <u>HELP</u>	on u	sing this fo	orm, see	e bottom of th	nis page						
Proposed cha	nge a	affects:	UICC a	ıpps#	ME	Ra	adio A	ccess Netwo	rk <mark>X</mark>	Core Ne	twork
Title:	ж	Clarificat	tion of S	RNS Reloca	ition Info						
Source:	¥	TSG-RA	N WG2								
Work item cod	de:₩	TEI						Date: ₩	20/0	8/2002	
Category:	ж	A Use <u>one</u> o	f the follo	owing categori	es:			Release: ₩ Use <u>one</u> of	_	-	eases:
		A (co B (ac C (fu D (ec	ddition of nctional ditorial m kplanatio	ds to a correct feature), modification of odification) ons of the abov	f feature)			2 R96 R97 R98 R99 Rel-4 Rel-5	(Relea (Relea (Relea	,	

Reason for change: # 1.

- 1. The parameter value "await RB Release Complete" is not included in ASN.1 of SRNS Relocation Info although it is included in the tabular. This value would be needed when RB release procedure is used to switch the UE to CELL_FACH and trigger SRNS relocation upon the following cell update message.
- 2. With the current standard in the IE "SRNS Relocation info" in the list "Ciphering info per radio bearer" there should be an IE "RB Id" giving the RB identity of the radio bearer for which this information is valid.

Summary of change: ₩

- 1. The parameter value "awaitRRC-ConnectionRe-establishmentComplete" is redefined as "awaitRB-ReleaseComplete"
- 2. It is clarified that the order of occurrence of the IE "Ciphering info per radio bearer" in the "SRNS Relocation Info" IE is the same as in the IE "Signalling RB information list" and the RBs in the IE "RAB information list". The signalling RBs are supposed to be listed first. Only UM and AM RBs that are ciphered are supposed to be listed.

Isolated Impact analysis

No impact on a UE implementations because neither procedure nor parameter related to UE is changed.

It would not have any impact on UTRAN implementations behaving like specified in this CR, a UTRAN implementation that does not behave according this CR may not be able to succeed this type of relocation when the UE is switched to CELL FACH.

Consequences if not approved:

SRNS Relocation in CELL_FACH triggered by a RB Release will not work.

Clauses affected: # 11.5, 14.12.4.2

Other specs affected:	ж	Y	X	Other core specifications Test specifications O&M Specifications	Ħ	
Other comments:	ж					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

11.5 RRC information between network nodes

```
Internode-definitions DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
    HandoverToUTRANCommand,
    MeasurementReport,
    PhysicalChannelReconfiguration,
    RadioBearerReconfiguration,
    RadioBearerRelease,
    RadioBearerSetup,
    RRC-FailureInfo-r3-IEs,
    TransportChannelReconfiguration
FROM PDU-definitions
-- Core Network IEs :
    CN-DomainIdentity,
    CN-DomainInformationList,
    CN-DRX-CycleLengthCoefficient,
   NAS-SystemInformationGSM-MAP,
-- UTRAN Mobility IEs :
    CellIdentity,
    URA-Identity
-- User Equipment IEs :
    C-RNTI,
    DL-PhysChCapabilityFDD-v380ext,
    FailureCauseWithProtErr,
    RRC-MessageSequenceNumber,
    STARTList,
    STARTSingle,
    START-Value,
    U-RNTI,
    UE-RadioAccessCapability,
    {\tt UE-RadioAccessCapability-v370ext}\,,
    UE-RadioAccessCapability-v380ext,
    UE-RadioAccessCapability-v3a0ext,
    UE-RadioAccessCapability-v4xyext,
-- Radio Bearer IEs :
    PredefinedConfigStatusList,
    PredefinedConfigValueTag,
    RAB-InformationSetupList,
    RAB-Identity,
    RB-Identity,
    SRB-InformationSetupList,
-- Transport Channel IEs :
    CPCH-SetID,
    DL-CommonTransChInfo,
    DL-AddReconfTransChInfoList,
    DRAC-StaticInformationList,
    UL-CommonTransChInfo,
    UL-AddReconfTransChInfoList,
-- Measurement IEs :
    MeasurementIdentity,
    MeasurementReportingMode,
    MeasurementType,
    {\tt MeasurementType-r4},
    AdditionalMeasurementID-List,
    PositionEstimate,
    UE-Positioning-IPDL-Parameters-TDD-r4-ext,
-- Other IEs :
InterRAT-UE-RadioAccessCapabilityList
FROM InformationElements
    maxCNdomains,
    maxNoOfMeas.
    maxRB,
    maxRBallRABs,
    maxRFC3095-CID,
    maxSRBsetup
FROM Constant-definitions
```

```
-- Part 1: Class definitions similar to what has been defined in 11.1 for RRC messages
-- Information that is tranferred in the same direction and across the same path is grouped
-- RRC information, to target RNC
__ **************
-- RRC Information to target RNC sent either from source RNC or from another RAT
ToTargetRNC-Container ::= CHOICE {
   interRATHandoverInfo
                                     InterRATHandoverInfoWithInterRATCapabilities-r3,
   srncRelocation
                                     SRNC-RelocationInfo-r3,
   rfc3095-ContextInfo
                                     RFC3095-ContextInfo-r5,
   extension
}
***********
-- RRC information, target RNC to source RNC
__ ***************
Target-RNC-ToSourceRNC-Container ::= CHOICE {
                                  RadioBearerSetup,
   radioBearerSetup
   radioBearerReconfiguration
                                    RadioBearerReconfiguration,
   radioBearerRelease
                                     RadioBearerRelease,
   radioBearerRelease RadioBearerRelease, transportChannelReconfiguration TransportChannelReconfiguration,
   physicalChannelReconfiguration PhysicalChannelReconfiguration, rrc-FailureInfo RRC-FailureInfo-r3-IEs,
                                     NULL
   extension
}
-- Part 2: Container definitions, similar to the PDU definitions in 11.2 for RRC messages
-- In alphabetical order
__ ***************
-- Handover to UTRAN information
__ ***************************
InterRATHandoverInfoWithInterRATCapabilities-r3 ::= CHOICE {
                                  SEQUENCE {
        -- IE InterRATHandoverInfoWithInterRATCapabilities-r3-IEs also
       -- includes non critical extensions
                                 InterRATHandoverInfoWithInterRATCapabilities-r3-IEs,
       interRATHandoverInfo-r3
       v390NonCriticalExtensions
                                      SEQUENCE {
           interRATHandoverInfoWithInterRATCapabilities-v390ext
   InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs,
           -- Reserved for future non critical extension
           nonCriticalExtensions
                                         SEQUENCE {} OPTIONAL
       }
              OPTIONAL
    criticalExtensions
                                 SEQUENCE {}
}
InterRATHandoverInfoWithInterRATCapabilities-r3-IEs::=
                                                       SEQUENCE {
       -- The order of the IEs may not reflect the tabular format
        -- but has been chosen to simplify the handling of the information in the BSC
    -- Other IEs
                                     InterRAT-UE-RadioAccessCapabilityList
       ue-RATSpecificCapability
                                                                           OPTIONAL,
       -- interRATHandoverInfo, Octet string is used to obtain 8 bit length field prior to
       -- actual information. This makes it possible for BSS to transparently handle information
       -- received via GSM air interface even when it includes non critical extensions.
       -- The octet string shall include the InterRATHandoverInfo information
       -- The BSS can re-use the 04.18 length field received from the MS
       interRATHandoverInfo
                                     OCTET STRING (SIZE (0..255))
}
InterRATHandoverInfoWithInterRATCapabilities-v390ext-IEs ::= SEQUENCE {
    -- User equipment IEs
       failureCauseWithProtErr
                                         FailureCauseWithProtErr
                                                                               OPTIONAL
__ *****************
```

```
-- RFC3095 context, source RNC to target RNC
__ *****************
RFC3095-ContextInfo-r5 ::= CHOICE {
                                  SEQUENCE {
       rFC3095-ContextInfoList-r5
                                     RFC3095-ContextInfoList-r5,
       -- Reserved for future non critical extension
       nonCriticalExtensions
                                     SEQUENCE {} OPTIONAL
   },
   criticalExtensions
                                  SEQUENCE {}
}
RFC3095-ContextInfoList-r5 ::=
                                  SEQUENCE (SIZE (1..maxRBallRABs)) OF
                                      RFC3095-ContextInfo
__ ******************
-- SRNC Relocation information
__ ****************
SRNC-RelocationInfo-r3 ::= CHOICE {
                                  SEQUENCE {
       sRNC-RelocationInfo-r3
                                    SRNC-RelocationInfo-r3-IEs,
           v380NonCriticalExtensions
                                             SEQUENCE {
               sRNC-RelocationInfo-v380ext SRNC-RelocationInfo-v380ext-IEs,
               -- Reserved for future non critical extension
               v390NonCriticalExtensions
                                               SEQUENCE {
                                               SRNC-RelocationInfo-v390ext-IEs,
                   sRNC-RelocationInfo-v390ext
                   v3a0NonCriticalExtensions
                                                     SEQUENCE {
                       sRNC-RelocationInfo-v3a0ext
                                                        SRNC-RelocationInfo-v3a0ext-IEs,
                       v3b0NonCriticalExtensions
                                                         SEQUENCE {
                          sRNC-RelocationInfo-v3b0ext
                                                             SRNC-RelocationInfo-v3b0ext-IEs,
                          v4xyNonCriticalExtensions
                                                             SEQUENCE {
                              sRNC-RelocationInfo-v4xyext
                                                                SRNC-RelocationInfo-v4xyext-IEs,
                              -- Reserved for future non critical extension
                              nonCriticalExtensions
                                                            SEQUENCE {} OPTIONAL
                              OPTIONAL
                          OPTIONAL
                      OPTIONAL
           }
                   OPTIONAL
   criticalExtensions
                                  SEQUENCE {}
}
SRNC-RelocationInfo-r3-IEs ::=
                                 SEQUENCE {
    -- Non-RRC IEs
                                      StateOfRRC.
       stateOfRRC
       stateOfRRC-Procedure
                                     StateOfRRC-Procedure,
    -- Ciphering related information IEs
    -- If the extension v380 is included use the extension for the ciphering status per CN domain
       {\tt cipheringStatus}
                                     CipheringStatus,
       calculationTimeForCiphering
                                      CalculationTimeForCiphering
                                                                        OPTIONAL,
       cipheringInfoPerRB-List
                                     CipheringInfoPerRB-List
                                                                         OPTIONAL,
       count-C-List
                                      COUNT-C-List
                                                                        OPTIONAL,
       integrityProtectionStatus
                                     IntegrityProtectionStatus.
       srb-SpecificIntegrityProtInfo SRB-SpecificIntegrityProtInfoList,
       implementationSpecificParams
                                      ImplementationSpecificParams
                                                                        OPTIONAL,
    -- User equipment IEs
       u-RNTI
                                      U-RNTI,
                                      C-RNTT
                                                                        OPTIONAL.
       C-RNTT
       ue-RadioAccessCapability
                                      UE-RadioAccessCapability,
       ue-Positioning-LastKnownPos
                                      UE-Positioning-LastKnownPos
                                                                        OPTIONAL,
    -- Other IEs
       ue-RATSpecificCapability
                                     InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- UTRAN mobility IEs
       ura-Identity
                                      URA-Identity
                                                                         OPTIONAL,
    -- Core network IEs
       cn-CommonGSM-MAP-NAS-SysInfo
                                     NAS-SystemInformationGSM-MAP,
       cn-DomainInformationList
                                      CN-DomainInformationList
                                                                        OPTIONAL,
    -- Measurement IEs
       ongoingMeasRepList
                                      OngoingMeasRepList
                                                                        OPTIONAL,
    -- Radio bearer IEs
                                      PredefinedConfigStatusList,
       predefinedConfigStatusList
```

```
srb-InformationList
                                      SRB-InformationSetupList,
       rab-InformationList
                                      RAB-InformationSetupList
                                                                         OPTIONAL,
    -- Transport channel IEs
                                    UL-CommonTransChInfo
       ul-CommonTransChInfo
                                                                         OPTIONAL.
       ul-TransChInfoList
                                      UL-AddReconfTransChInfoList
                                                                         OPTIONAL,
       modeSpecificInfo
                                      CHOICE {
           fdd
                                          SEQUENCE {
               cpch-SetID
                                              CPCH-SetID
                                                                         OPTIONAL,
               transChDRAC-Info
                                              DRAC-StaticInformationList OPTIONAL
           },
           tdd
                                          NULL
                                  DL-CommonTransChInfo
       dl-CommonTransChInfo
                                                                         OPTIONAL.
       dl-TransChInfoList
                                     DL-AddReconfTransChInfoList
                                                                         OPTIONAL,
    -- Measurement report
                                      MeasurementReport
       measurementReport
                                                                         OPTIONAL ,
       nonCriticalExtensions
                                      SEQUENCE {
           -- In case of TDD only up-Ipdl-Parameters-TDD is present, otherwise
           -- this IE is absent
           up-Ipdl-Parameters-TDD
                                          UE-Positioning-IPDL-Parameters-TDD-r4-ext
                                                                                    OPTIONAL,
        -- Extension mechanism for non- release4 information
           nonCriticalExtensions
                                          SEQUENCE {}
                                                                                     OPTIONAL
                                                                        OPTIONAL
}
SRNC-RelocationInfo-v380ext-IEs ::= SEQUENCE {
    -- Ciphering related information IEs
       cn-DomainIdentity
                                          CN-DomainIdentity,
       cipheringStatusList
                                          CipheringStatusList
}
SRNC-RelocationInfo-v390ext-IEs ::= SEQUENCE {
       cn-DomainInformationList-v390ext CN-DomainInformationList-v390ext
                                                                                 OPTIONAL,
       ue-RadioAccessCapability-v370ext
                                          UE-RadioAccessCapability-v370ext
                                                                                 OPTIONAL.
       ue-RadioAccessCapability-v380ext UE-RadioAccessCapability-v380ext
                                                                                 OPTIONAL,
                                          DL-PhysChCapabilityFDD-v380ext,
                                                                                 OPTIONAL
}
SRNC-RelocationInfo-v3a0ext-IEs ::= SEQUENCE {
        -- cn-domain identity for IE startValueForCiphering-v3a0ext is specified
        -- in subsequent extension (SRNC-RelocationInfo-v3b0ext-IEs)
       startValueForCIphering-v3a0ext
                                          START-Value,
       cipheringInfoForSRB1-v3a0ext
                                          CipheringInfoForSRB1-v3a0ext,
       ue-RadioAccessCapability-v3a0ext UE-RadioAccessCapability-v3a0ext
                                                                                 OPTIONAL
}
{\tt SRNC-RelocationInfo-v3b0ext-IEs} \; ::= \; {\tt SEQUENCE} \; \{
        -- cn-domain identity for IE startValueForCiphering-v3a0ext included in previous extension
       cn-DomainIdentity
                             CN-DomainIdentity,
        -- the remaining start values are contained in IE startValueForCiphering-v3b0ext
       startValueForCiphering-v3b0ext
                                          STARTList2
                                                                                 OPTIONAL
}
STARTList2 ::=
                                   SEQUENCE (SIZE (2..maxCNdomains)) OF
                                      STARTSingle
SRNC-RelocationInfo-v4xyext-IEs ::= SEQUENCE {
       ue-RadioAccessCapability-v4xyext UE-RadioAccessCapability-v4xyext
}
CipheringInfoForSRB1-v3a0ext ::= SEQUENCE {
       dl-UM-SN
                                          BIT STRING (SIZE (7))
}
CipheringStatusList ::=
                              SEQUENCE (SIZE (1..maxCNdomains)) OF
                                      CipheringStatusCNdomain
                                      SEQUENCE {
CipheringStatusCNdomain ::=
                                      CN-DomainIdentity,
       cn-DomainIdentity
       cipheringStatus
                                      CipheringStatus
}
                                 SEQUENCE {
SRNC-RelocationInfo-r4 ::=
    -- Non-RRC IEs
       stateOfRRC
                                      StateOfRRC,
       stateOfRRC-Procedure
                                      StateOfRRC-Procedure,
                                      CipheringStatus,
       cipheringStatus
```

```
calculationTimeForCiphering
                                          CalculationTimeForCiphering
                                                                                 OPTIONAL,
        cipheringInfoPerRB-List
                                           CipheringInfoPerRB-List
                                                                                 OPTIONAL,
        integrityProtectionStatus
                                          IntegrityProtectionStatus,
        srb-SpecificIntegrityProtInfo
                                          SRB-SpecificIntegrityProtInfoList,
        implementationSpecificParams
                                          ImplementationSpecificParams
                                                                                 OPTIONAL,
    -- User equipment IEs
        u-RNTI
                                          U-RNTI,
                                          C-RNTI
        c-RNTI
                                                                                 OPTIONAL,
        ue-RadioAccessCapability
                                          UE-RadioAccessCapability,
        ue-Positioning-LastKnownPos
                                          UE-Positioning-LastKnownPos
                                                                                 OPTIONAL,
    -- Other IEs
        ue-RATSpecificCapability
                                          InterRAT-UE-RadioAccessCapabilityList OPTIONAL,
    -- UTRAN mobility IEs
        ura-Identity
                                          URA-Identity
                                                                                 OPTIONAL,
    -- Core network IEs
        cn-CommonGSM-MAP-NAS-SysInfo
                                          NAS-SystemInformationGSM-MAP,
        cn-DomainInformationList
                                          CN-DomainInformationList
                                                                                 OPTIONAL.
    -- Measurement IEs
        ongoingMeasRepList
                                          OngoingMeasRepList-r4
                                                                                 OPTIONAL,
    -- Radio bearer IEs
        predefinedConfigStatusList
                                          PredefinedConfigStatusList,
        srb-InformationList
                                          SRB-InformationSetupList,
        rab-InformationList
                                          RAB-InformationSetupList
                                                                                 OPTIONAL,
    -- Transport channel IEs
        ul-CommonTransChInfo
                                          UL-CommonTransChInfo
                                                                                 OPTIONAL.
                                          UL-AddReconfTransChInfoList
        ul-TransChInfoList
                                                                                 OPTIONAL,
        modeSpecificInfo
                                          CHOICE {
            fdd
                                              SEQUENCE {
                 cpch-SetID
                                                   CPCH-SetID
                                                                                 OPTIONAL.
                                                   DRAC-StaticInformationList OPTIONAL
                 transChDRAC-Info
            },
            tdd
                                               NULL
        dl-CommonTransChInfo
                                          DL-CommonTransChInfo
                                                                                 OPTIONAL,
        dl-TransChInfoList
                                          DL-AddReconfTransChInfoList
                                                                                 OPTIONAL,
    -- Measurement report
        measurementReport
                                                                                 OPTIONAL.
                                          MeasurementReport
        nonCriticalExtensions
                                          SEQUENCE {
            -- In case of TDD only up-Ipdl-Parameters-TDD is present, otherwise
             -- this IE is absent
            up-Ipdl-Parameters-TDD
                                              UE-Positioning-IPDL-Parameters-TDD-r4-ext
                                                                                              OPTIONAL,
        -- Extension mechanism for non- release4 information
            nonCriticalExtensions
                                              SEQUENCE {}
                                                                                              OPTIONAL
                                                                                 OPTIONAL
}
-- IE definitions
CalculationTimeForCiphering ::=
                                      SEQUENCE {
    cell-Id
                                          CellIdentity,
    sfn
                                          INTEGER (0..4095)
}
CipheringInfoPerRB ::=
                                      SECUENCE {
    dl-HFN
                                          BIT STRING (SIZE (20..25)),
                                          BIT STRING (SIZE (20..25))
    ul-HFN
}
-- TABULAR: CipheringInfoPerRB-List, multiplicity value numberOfRadioBearers
-- has been replaced with maxRB.
The order of occurrence of the IE "Ciphering info per radio bearer" in the
-- "SRNS Relocation Info" IE is the same as in the IE "Signalling RB information
-- list" and the RBs in the IE "RAB information list". The signalling RBs are supposed
-- to be listed first. Only UM and AM RBs that are ciphered are listed here
CipheringInfoPerRB-List ::=
                                      SEQUENCE (SIZE (1..maxRB)) OF
                                          CipheringInfoPerRB
CipheringStatus ::=
                                      ENUMERATED {
                                          started, notStarted }
CN-DomainInformation-v390ext ::=
                                          SEOUENCE {
    cn-DRX-CycleLengthCoeff
                                           CN-DRX-CycleLengthCoefficient
                                          SEQUENCE (SIZE (1..maxCNdomains)) OF
CN-DomainInformationList-v390ext ::=
                                          CN-DomainInformation-v390ext
```

```
COUNT-C-List ::=
                                             SEQUENCE (SIZE (1..maxCNdomains)) OF
                                             COUNT-CSingle
COUNT-CSingle ::=
                                            SEQUENCE {
    cn-DomainIdentity
                                            CN-DomainIdentity,
                                            BIT STRING (SIZE (32))
}
-- The structure of DL-RFC3095-Context is FFS
                                SEQUENCE {
DL-RFC3095-Context ::=
                                        INTEGER (0..16383),
   rfc3095-Context-Identity
                                            ENUMERATED {u, o, r}
    dl-mode
}
ImplementationSpecificParams ::=
                                       BIT STRING (SIZE (1..512))
IntegrityProtectionStatus ::=
                                        ENUMERATED {
                                            started, notStarted }
                                        CHOICE {
MeasurementCommandWithType ::=
    setup
                                            MeasurementType,
    modify
                                            NULL,
    release
                                            NULL
}
MeasurementCommandWithType-r4 ::=
                                        CHOICE {
                                            MeasurementType-r4,
    modify
                                            NULL,
                                            NIII.I.
    release
}
                                       SEQUENCE {
OngoingMeasRep ::=
                                 MeasurementIdentity,
    measurementIdentity
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType
    measurementCommandWithType MeasurementCommandWithType,
measurementReportingMode MeasurementReportingMode
additionalMeasurementID-List AdditionalMeasurementID-List
                                                                                    OPTIONAL,
                                                                                 OPTIONAL
}
OngoingMeasRep-r4 ::=
                                       SEQUENCE {
                            MeasurementIdentity,
    measurementIdentity
    -- TABULAR: The CHOICE Measurement in the tabular description is included
    -- in MeasurementCommandWithType-r4.
    measurementCommandWithType MeasurementCommandWithType-r4,
measurementReportingMode MeasurementReportingMode
additionalMeasurementID-List AdditionalMeasurementID-List
                                                                                    OPTIONAL.
                                                                                   OPTIONAL
                                        SEQUENCE (SIZE (1..maxNoOfMeas)) OF
OngoingMeasRepList ::=
                                            OngoingMeasRep
OngoingMeasRepList-r4 ::=
                                        SEQUENCE (SIZE (1..maxNoOfMeas)) OF
                                            OngoingMeasRep-r4
RFC3095-ContextInfo ::=
                                        SEQUENCE {
                                           RB-Identity,
    rb-Identity
    rfc3095-Context-List
                                            RFC3095-Context-List
}
RFC3095-Context-List ::=
                                        SEQUENCE (SIZE (1..maxRFC3095-CID)) OF SEQUENCE {
                                          DL-RFC3095-Context OPTIONAL,
    dl-RFC3095-Context
    ul-RFC3095-Context
                                            UL-RFC3095-Context
                                                                      OPTIONAL
SRB-SpecificIntegrityProtInfo ::= SEQUENCE {
    ul-RRC-HFN
                                           BIT STRING (SIZE (28)),
    dl-RRC-HFN
                                            BIT STRING (SIZE (28)),
    ul-RRC-SequenceNumber
                                            RRC-MessageSequenceNumber,
    dl-RRC-SequenceNumber
                                            RRC-MessageSequenceNumber
}
{\tt SRB-SpecificIntegrityProtInfoList} \; ::= \; {\tt SEQUENCE} \; \; ({\tt SIZE} \;\; ({\tt 4..maxSRBsetup})) \; \; {\tt OF} \; \; \\
                                            SRB-SpecificIntegrityProtInfo
StateOfRRC ::=
                                        ENUMERATED {
                                            cell-DCH, cell-FACH,
```

```
cell-PCH, ura-PCH }
StateOfRRC-Procedure ::=
                                   ENUMERATED {
                                        awaitNoRRC-Message,
                                        awaitRB-ReleaseComplete,
                                        awaitRB-SetupComplete,
                                        awaitRB-ReconfigurationComplete,
                                       awaitTransportCH-ReconfigurationComplete,
                                        a \verb|waitPhysicalCH-ReconfigurationComplete|,
                                        awaitActiveSetUpdateComplete,
                                        awaitHandoverComplete,
                                        sendCellUpdateConfirm,
                                        sendUraUpdateConfirm,
                                        sendRrcConnectionReestablishment,
                                        otherStates
}
UE-Positioning-LastKnownPos ::= SEQUENCE {
       sfn
                                       INTEGER (0..4095),
       cell-id
                                        CellIdentity,
       positionEstimate
                                       PositionEstimate
}
-- The structure of UL-RFC3095-Context is FFS
                          SEQUENCE {
UL-RFC3095-Context ::=
                                  INTEGER (0..16383),
   rfc3095-Context-Identity
    ul-mode
                                       ENUMERATED {u, o, r}
}
END
```

14.12.4.2 SRNS RELOCATION INFO

This RRC message is sent between network nodes when preparing for an SRNS relocation.

Direction: source RAT→target RNC

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
Non RRC IEs			reference	
>State of RRC	MP		RRC state	
- State of this			indicator,	
			10.3.3.35a	
>State of RRC procedure	MP		Enumerated	
реготор			(await no	
			RRC	
			message,	
			Complete,	
			await RB	
			Release	
			Complete,	
			await RB	
			Setup	
			Complete,	
			await RB	
			Reconfigurat	
			ion	
			Complete,	
			await RB	
			Release	
			Complete,	
			await	
			Transport	
			CH	
			Reconfigurat ion	
			Complete,	
			await	
			Physical CH	
			Reconfigurat	
			ion	
			Complete,	
			await Active	
			Set Update	
			Complete,	
			await	
			Handover	
			Complete,	
			send Cell	
			Update	
			Confirm,	
			send URA	
			Update	
			Confirm,	
Cinharing valets distanced in			, others)	
Ciphering related information	MD	41 to		
>Ciphering status for each CN domain	MP	<1 to maxCNDo		
Gomain		maxCND0 mains>		
>>CN domain identity	MP	mains/	CN domain	
22014 domain identity	1411		identity	
			10.3.1.1	
>>Ciphering status	MP		Enumerated(
January States			Not started,	
			Started)	
>>START	MP		START	START value to be used in
			10.3.3.38	this CN domain.
>Latest configured CN domain	MP		CN domain	Value contained in the variable
atout configured Ort domain	1	i	J. T. GOTTIGHT	1 - Sido contamba in the variable

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			identity 10.3.1.1	of the same name.
>Calculation time for ciphering related information	CV- Ciphering			Time when the ciphering information of the message were calculated, relative to a cell of the target RNC
>>Cell Identity	MP		Cell Identity 10.3.2.2	Identity of one of the cells under the target RNC and included in the active set of the current call
>>SFN	MP		Integer(040 95)	
>COUNT-C list	CV- Ciphering	1 to <maxcndo mains></maxcndo 		COUNT-C values for radio bearers using transparent mode RLC
>>CN domain identity	MP		CN domain identity 10.3.1.1	
>>COUNT-C	MP		Bit string(32)	
>Ciphering info per radio bearer	OP	1 to <maxrb></maxrb>		For signalling radio bearers this IE is mandatory.
>>RB identity	MP		RB identity 10.3.4.16	
>>Downlink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
>>Downlink SN	CV-SRB1		Bit String(7)	VT(US) of RLC UM
>>Uplink HFN	MP		Bit string(2025	This IE is either RLC AM HFN (20 bits) or RLC UM HFN (25 bits)
Integrity protection related information				
>Integrity protection status	MP		Enumerated(Not started, Started)	
>Signalling radio bearer specific integrity protection information	CV-IP	4 to <maxsrbs etup></maxsrbs 		
>>Uplink RRC HFN	MP		Bit string (28)	
>>Downlink RRC HFN	MP		Bit string (28)	
>>Uplink RRC Message sequence number	MP		Integer (0 15)	
>>Downlink RRC Message sequence number	MP		Integer (0 15)	
>Implementation specific parameters	OP		Bit string (1512)	
RRC IEs			(1012)	
UE Information elements		1		
>U-RNTI	MP		U-RNTI 10.3.3.47	
>C-RNTI	OP		C-RNTI 10.3.3.8	
>UE radio access Capability	MP		UE radio access capability 10.3.3.42	
>UE radio access capability extension	OP		UE radio access capability extension 10.3.3.42a	
>Last known UE position	OP			
>>SFN	MP		Integer	Time when position was

>>Cell ID >>Cell iD >>Cell identity: 10.3.2.2 statusted didicates the cell, the SFN is valid for. >>Ellipsoid Point >>Ellipsoid point with uncertainty circle >>>Ellipsoid point with uncertainty ellipsoid point with uncertainty ellipso in the uncertainty ellipsoid point with uncertainty ellipso in the uncertainty ellipsoid point with uncertainty ellipsoid point with uncertainty ellipsoid point with uncertainty ellipsoid point with altitude and uncertainty ellipsoid point with altitude in 10.3.8.4 >>>Ellipsoid point with altitude in 10.3.8.4 Ellipsoid point with altitude in 10.3.8.4 >>>Ellipsoid point with altitude in 10.3.8.4 Ellipsoid point with altitude in 10.3.8.4 >>>Ellipsoid point with altitude in 10.3.8.4 Ellipsoid point with altitude and uncertainty ellipsoid in altitude and uncertainty ellipsoid in the point with altitude and uncertainty ellipsoid point with altitude and uncertainty ellipsoid in the point with altitude and uncertainty ellipsoid	Information Element/Group Name	Need	reference		Semantics description
>>CHOICE Position estimate >>Ellipsoid Point >>Ellipsoid Point All Blipsoid Point Poi					
>>>Ellipsoid Point Sellipsoid Point Sellipsoid Point Sellipsoid Point 10.3.8.4a	>>Cell ID	MP			
>>>Ellipsoid Point Point: 10.3.8 4a >>>Ellipsoid point with uncertainty circle >>>Ellipsoid point with uncertainty circle >>>Ellipsoid point with uncertainty ellipse >>>Ellipsoid point with uncertainty ellipse >>>Ellipsoid point with uncertainty ellipse 10.3.8 4a Ellipsoid point with uncertainty ellipse 10.3.8 4b >>>Ellipsoid point with altitude and uncertainty ellipsoid Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4b Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid and uncertainty ellipsoid 10.3.8 4c Ellipsoid point with altitude and uncertainty ellipsoid el		<u> </u>		10.3.2.2	valid for.
>>>Ellipsoid point with uncertainty circle >>>Ellipsoid point with uncertainty circle >>>Ellipsoid point with uncertainty ellipse >>>Ellipsoid point with uncertainty ellipse Second		MP			
>>Ellipsoid point with uncertainty circle >>Sellipsoid point with uncertainty circle >>Sellipsoid point with uncertainty ellipse >>>Ellipsoid point with uncertainty ellipse >>>Ellipsoid point with altitude >>>Ellipsoid point with altitude >>>Ellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid point with altitude and uncertainty ellipsoid Sellipsoid point with altitude and uncertainty ellipsoid p	>>>Ellipsoid Point				
>>>Ellipsoid point with uncertainty circle >>>Ellipsoid point with uncertainty circle 10.3.8.4d Ellipsoid point with uncertainty ellipse >>>Ellipsoid point with altitude 10.3.8.4e Ellipsoid point with altitude and uncertainty ellipse 10.3.8.4e >>>Ellipsoid point with altitude and uncertainty ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4c Other Information elements >UE system specific capability >>Inter-RAT UE radio access capability 10.3.8.7 Inter-RAT UE radio access capability >>Inter-RAT UE radio access capability >>Inter-RAT UE radio access capability >>Inter-RAT UE radio access capability Inter-RAT UE radio access capability >>Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio access capability Inter-RAT UE radio acce					
uncertainty circle >>>Ellipsoid point with uncertainty ellipse >>>Ellipsoid point with uncertainty ellipse 10.3.8.4d Ellipsoid point with uncertainty ellipse 10.3.8.4e Ellipsoid point with altitude 2>>>Ellipsoid point with altitude 10.3.8.4b >>>Ellipsoid point with altitude 10.3.8.4b Ellipsoid point with altitude and uncertainty ellipse did point with altitude and uncertainty ellipsoid point with ellipsoid point with altitude and uncertainty ellipsoid point with ellipsoid point ellipsoid point with ellipsoid point with ellipsoid point with ellipsoid ellipsoid point with ellipsoid p	Ellippoid point with	 			
Uncertainty circle 10.3.8.4d	>>>Ellipsoid point with			point with	
circle 103.8.4d	uncertainty circle				
10.3.8.4d Ellipsoid point with uncertainty ellipse Ellipsoid point with uncertainty ellipse 10.3.8.4e Ellipsoid point with uncertainty ellipse 10.3.8.4e Ellipsoid point with altitude 10.3.8.4b Ellipsoid point with altitude 10.3.8.4b Ellipsoid point with altitude and uncertainty ellipsoid 10.3.8.4b Ellipsoid 10.3.8.4c 10.3.8.7c 10.3.					
Section Sect					
uncertainty ellipse >>>Ellipsoid point with altitude >>>Ellipsoid point with altitude and uncertainty ellipsoid Ellipsoid point with altitude and uncertainty ellipsoid District point with altitude District point with	>>> Ellipsoid point with	+			
uncertainty ellipse 10.3.8.4e					
ellipse 10.3.8.4e >>>Ellipsoid point with altitude 20.3.8.4b Ellipsoid point with altitude 31.3.8.4d Ellipsoid point with altitude and uncertainty ellipsoid 31.3.8.4c Other Information elements >UE system specific capability >>Inter-RAT UE radio access capability >>Inter-RAT UE radio access capability 10.3.8.7 UE radio access capability 10.3.8.7 UEAN Mobility Information elements >URA Identifier OP URA identity 10.3.2.6 CN Information Elements >CN common GSM-MAP NAS system information (CSM-MAP) 10.3.1.9 >CN domain related information OP 1 to	anocitainty chipoc				
10.3.8.4e					
>>>Ellipsoid point with altitude >>>Ellipsoid point with altitude and uncertainty ellipsoid >>>Ellipsoid point with altitude and uncertainty ellipsoid Ellipsoid point with altitude and uncertainty ellipsoid Point with altitude and uncertainty ellipsoid 10.3.8.4c Other Information elements >>UE system specific capability >>Inter-RAT UE radio access capability >>Inter-RAT UE radio access capability 10.3.8.7 UTRAN Mobility Information elements >>URA Identifier OP URA identity 10.3.2.6 CN Information Elements >>CN common GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >>CN domain related information >>CN domain identity MP >>CN domain identity MP >>CN domain specific GSM- MAP NAS system info MP NAS system information (GSM-MAP) 10.3.1.9 NAS system information (GSM-MAP) 10.3.3.6 Measurement Related Information elements >For each ongoing measurement reporting OP 1 to AmaxNoOf					
Doint with altitude 10.3.8.4b	>>>Ellipsoid point with altitude				
altitude 10.3.8.4b					
>>>Ellipsoid point with altitude and uncertainty ellipsoid Other Information elements >UE system specific capability >>Inter-RAT UE radio access capability >>URA Identifier OP URA identity 10.3.2.6 CN Information Elements >CN common GSM-MAP NAS system information (GSM-MAP) >>CN domain related information >>CN domain specific GSM-MAP NAS system information (GSM-MAP) >>CN domain specific DRX cycle length coefficient P>CN domain specific DRX cycle length coefficient Measurement Related Information elements >For each ongoing of the state of the point with a poin					
>>>Ellipsoid point with altitude and uncertainty ellipsoid Other Information elements >UE system specific capability >>Inter-RAT UE radio access capability >>URA Identifier OP URA identity 10.3.2.6 CN Information Elements >CN common GSM-MAP NAS system information (GSM-MAP) >>CN domain related information >>CN domain specific GSM-MAP NAS system information (GSM-MAP) >>CN domain specific DRX cycle length coefficient P>CN domain specific DRX cycle length coefficient Measurement Related Information elements >For each ongoing of the state of the point with a poin					
Autitude and uncertainty ellipsoid 10.3.8.4c OP 1 to cmaxSyste mCapability y> Inter-RAT UE radio access capability Inter-RAT UE radio access capability 10.3.8.7 UTRAN Mobility Information elements SURA Identifier OP URA identity 10.3.2.6 CN Information Elements SCN common GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain related information OP 1 to cMaxCNdo mains >>CN domain identity MP >>CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >>CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >>CN domain specific DRX cycle length coefficient Measurement Related Information elements >For each ongoing Measurement reporting OP 1 to cMaxNoOf	>>>Ellipsoid point with altitude			Ellipsoid	
Other Information elements >UE system specific capability >Inter-RAT UE radio access capability >Inter-RAT UE radio access capability >Inter-RAT UE radio access capability UTRAN Mobility Information elements >URA Identifier OP URA identity 10.3.2.6 CN Information Elements -CN common GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain related information >CN domain identity >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific DRX cycle length coefficient Measurement Related Information elements >For each ongoing Maxing OP 1 to cymax System info Maxing CN domain specific DRX cycle length coefficient, 10.3.3.6				point with	
Other Information elements >UE system specific capability >Inter-RAT UE radio access capability >Inter-RAT UE radio access capability UTRAN Mobility Information elements >URA Identifier OP URA identity 10.3.2.6 CN Information Elements >CN common GSM-MAP NAS system information information System information CN domain related information >CN domain identity >CN domain specific GSM-MAP MAP NAS system information System information OP 1 to characteristic GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 CN related information to be provided for each CN domain information (GSM-MAP) 10.3.1.9 >CN domain specific DRX cycle length coefficient Measurement Related Information elements >For each ongoing Measurement reporting OP 1 to characteristic GSM-MAP NAS system information (GSM-MAP) 10.3.3.6	-			altitude and	
Other Information elements >UE system specific capability >Inter-RAT UE radio access capability >Inter-RAT UE radio access capability UTRAN Mobility Information elements >URA Identifier OP URA identify 10.3.2.6 CN Information Elements >CN common GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain related information >CN domain identity >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >CN domain specific GSM-MAP NAS system information (GSM-MAP) 10.3.1.9 >FOR domain specific DRX cycle length coefficient Weasurement Related Information elements >For each ongoing CP 1 to (MaxNoOf)					
OP					
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Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			information 10.3.4.5a	
>Signalling RB information list	MP	1 to <maxsrbs etup></maxsrbs 	10.0.1100	For each signalling radio bearer
>>Signalling RB information	MP		Signalling RB information to setup 10.3.4.24	
>RAB information list	OP	1 to <maxrabs etup></maxrabs 		Information for each RAB
>>RAB information	MP		RAB information to setup 10.3.4.10	
Transport Channel Information Elements				
Uplink transport channels				
>UL Transport channel information common for all transport channels	OP		UL Transport channel information common for all transport channels 10.3.5.24	
>UL transport channel information list	OP	1 to <maxtrch ></maxtrch 		
>>UL transport channel information	MP		Added or reconfigured UL TrCH information 10.3.5.2	
>CHOICE mode	OP		10.0.0.2	
>>FDD				
>>>CPCH set ID	OP		CPCH set ID 10.3.5.5	
>>>Transport channel information for DRAC list	OP	1 to <maxtrch ></maxtrch 		
>>>>DRAC static information	MP		DRAC static information 10.3.5.7	
>>TDD				(no data)
Downlink transport channels	OF		DI Too	
>DL Transport channel information common for all transport channels	OP		DL Transport channel information common for all transport channels 10.3.5.6	
>DL transport channel information list	OP	1 to <maxtrch< td=""><td></td><td></td></maxtrch<>		
>>DL transport channel information	MP		Added or reconfigured DL TrCH information 10.3.5.1	
>Measurement report	OP		MEASUREM ENT REPORT	

Information Element/Group Name	Need	Multi	Type and reference	Semantics description
			10.2.17	
Other Information elements				
Failure cause	OP		Failure cause 10.3.3.13	Diagnostics information related to an earlier SRNC Relocation request (see NOTE 2 in 14.12.0a)
Protocol error information	CV-ProtErr		Protocol error information 10.3.8.12	

Multi Bound	Explanation			
MaxNoOfMeas	Maximum number of active measurements, upper			
	limit 16			

Condition	Explanation
Setup	The IE is mandatory present when the IE Measurement command has the value "Setup", otherwise the IE is not needed.
Ciphering	The IE is mandatory present when the IE Ciphering Status has the value "started" and the ciphering counters need not be reinitialised, otherwise the IE is not needed.
IP	The IE is mandatory present when the IE Integrity protection status has the value "started" and the integrity protection counters need not be reinitialised, otherwise the IE is not needed.
ProtErr	This IE is mandatory present if the IE "Protocol error indicator" is included and has the value "TRUE". Otherwise it is not needed.
SRB1	The IE is mandatory present for RB1. Otherwise it is not needed.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19 – 23 August 2002

Tdoc R2-022292

	CHANGE REQUEST	CR-Form-v5
¥	25.331 CR 1612 ** rev - **	Current version: 3.11.0 #
For <u>HELP</u> on us	sing this form, see bottom of this page or look at the	pop-up text over the 🛱 symbols.
Proposed change a	nffects: # (U)SIM ME/UE Radio Acc	ess Network Core Network
Title: #	DCH quality target	
Source: 第	TSG-RAN WG2	
Work item code: ₩	TEI	Date: **August 21, 2002***
	Use one of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Release: # R99 Use one of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)
Reason for change:	: # The specification is unclear on when UE shall u	use the Transport Channel DLED
reason for analysis	value included in IE "DCH Quality target" for accomposition of the power control. Section 8.6.5.4 can be adjust its SIR target unless CRC exists in all trace. TFS of the DCH. This is not the intended behave For most of the reference RBs of 34.108 (main RBs), there is no CRC for the zero-block transposition. TSG-RAN1 indicated in LS R2-021821 (R1-02-8.6.5.4 could give the wrong impression. It is the discontinuous operation of outer loop power control of the power cont	djustment of the SIR target in e interpreted such that UE need not ensport formats of the downlink viour. It with exception of AMR speech port format.
Summary of change	e: # Section 8.6.5.4:	
	 The two original sentences are rephrases. Note added to clarify when target SIR at the UE, with reference to TS 25.212. Impact analysis: This CR is considered to have not implement this CR, it may omit to adjust the least one transport format in the TFS without a 	adjustment can be performed by ve isolated impact. If the UE does e SIR target in case there exists at
Consequences if not approved:	# Downlink power control might not work for CCT least one transport format without a CRC, i.e. for 34.108.	
Clauses affected:	ж <mark>8.6.5.4</mark>	
Other specs	YN XOther core specifications X	

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affected:	X Test specifications O&M Specifications	
Other comments:	×	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G Specs/CRs.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked **%** contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request

8.6.5.4 DCH quality target

If the IE "DCH quality target" is included, the UE shall:

- 1> at physical channel establishment set an initial downlink target SIR value based on the received IE "DCH quality target";
- 1> adjust the target SIR for the downlink power control to meet the quality target received in the IE "DCH quality target".

NOTE: Adjusting the target SIR is possible to do continuously by the UE if a CRC exists in all transport formats in the downlink TFS for a DCH. If a CRC does not exist in all transport formats, the UE can only adjust the target SIR when receiving transport formats containing a CRC and the UE has knowledge about the transport format according to [27].

At physical channel establishment, the UE sets an initial downlink target SIR value based on the received IEs "DCH quality target". The IE "DCH quality target" for a given DCH shall be used by the UE to set the target SIR for the downlink power control in case quality target can be set for this DCH, i.e. CRC exists in all transport formats in downlink TFS for this DCH.

14.9 Downlink power control

14.9.1 Generalities

This function is implemented in the UE in order to set the SIR target value on each CCTrCH used for the downlink power control. This SIR value shall be adjusted according to an autonomous function in the UE in order to achieve the same measured quality as the quality target set by UTRAN. The quality target is set as the transport channel BLER value for each transport channel as signalled by UTRAN. For CPCH the quality target is set as the BER of the DL DPCCH as signalled by UTRAN.

When transport channel BLER is used the UE shall run a quality target control loop such that the quality requirement is met for each transport channel, which has been assigned a BLER target.

When DL DPCCH BER is used the UE shall run a quality target control loop such that the quality requirement is met for each CPCH transport channel, which has been assigned a DL DPCCH BER target.

The UE shall set the SIR target when the physical channel has been set up or reconfigured. It shall not increase the SIR target value before the power control has converged on the current value. The UE may estimate whether the power control has converged on the current value, by comparing the averaged measured SIR to the SIR target value.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19 – 23 August 2002

Tdoc R2-022293

	CR-Form-v5 CHANGE REQUEST										
*	25	.331	CR	1613	⊭ rev	_ 3	⊮ Cu	rrent vers	sion:	4.5.0	æ
For <u>HELP</u> on	using	this forr	n, see bot	tom of thi	s page or	look at	the po	p-up text	over	the # sy	mbols.
Proposed change	e affec	:ts: ૠ	(U)SIM	ME	E/UE X	Radio	Acces	s Networ	k	Core N	etwork
Title:	₩ DC	H quali	ty target								
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Category:	Deta	F (corre A (corre B (addi C (func D (edite	he following ection) esponds to ition of feat trional modified prial modified lanations of BGPP TR 2	a correction a correction a correction of cation a correction of the above	on in an ea feature)		L	Riease: # Jse <u>one</u> of 2 R96 R97 R98 R99 REL-4 REL-5	the for (GSM (Relea (Relea (Relea (Relea (Relea)))
Reason for chang	ge: Ж	value i Downli adjust TFS of For mo RBs), t	ecification ncluded in ink power its SIR tan the DCH. ost of the r there is no RAN1 indic could giv tinuous op	TIE "DCH control. Some seference control contr	Quality to section 8.4 s CRC exot the interest RBs of 34 the zero-S R2-021 ng impres	arget" fo 6.5.4 ca ists in <u>a</u> ended b 4.108 (r block tr 821 (R1 ssion. It	or adjustin be in all transpersion and transportant to the control of the control	stment of nterpreted sport form our. with exce rt format. 016) that t understar	the S d such nats of eption the cu	IR target that UE f the dow of AMR s	in need not rnlink speech
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Clauses affected:	* #	8.6.5.	4								
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affected:	X Test specification X O&M Specification		

Other comments: #

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The UE shall set the SIR target when the physical channel has been set up or reconfigured. It shall not increase the SIR target value before the power control has converged on the current value. The UE may estimate whether the power control has converged on the current value, by comparing the averaged measured SIR to the SIR target value.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19 – 23 August 2002

Tdoc R2-022294

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Other comments: #

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8.6.5.4 DCH quality target

If the IE "DCH quality target" is included, the UE shall:

- 1> at physical channel establishment set an initial downlink target SIR value based on the received IE "DCH quality target";
- 1> adjust the target SIR for the downlink power control to meet the quality target received in the IE "DCH quality target".

NOTE: Adjusting the target SIR is possible to do continuously by the UE if a CRC exists in all transport formats in the downlink TFS for a DCH. If a CRC does not exist in all transport formats, the UE can only adjust the target SIR when receiving transport formats containing a CRC and the UE has knowledge about the transport format according to [27].

At physical channel establishment, the UE sets an initial downlink target SIR value based on the received IEs "DCH quality target". The IE "DCH quality target" for a given DCH shall be used by the UE to set the target SIR for the downlink power control in case quality target can be set for this DCH, i.e. CRC exists in all transport formats in downlink TFS for this DCH.

14.9 Downlink power control

14.9.1 Generalities

This function is implemented in the UE in order to set the SIR target value on each CCTrCH used for the downlink power control. This SIR value shall be adjusted according to an autonomous function in the UE in order to achieve the same measured quality as the quality target set by UTRAN. The quality target is set as the transport channel BLER value for each transport channel as signalled by UTRAN. For CPCH the quality target is set as the BER of the DL DPCCH as signalled by UTRAN.

When transport channel BLER is used the UE shall run a quality target control loop such that the quality requirement is met for each transport channel, which has been assigned a BLER target.

When DL DPCCH BER is used the UE shall run a quality target control loop such that the quality requirement is met for each CPCH transport channel, which has been assigned a DL DPCCH BER target.

The UE shall set the SIR target when the physical channel has been set up or reconfigured. It shall not increase the SIR target value before the power control has converged on the current value. The UE may estimate whether the power control has converged on the current value, by comparing the averaged measured SIR to the SIR target value.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19 – 23 August 2002

CHANGE REQUEST									
*	25.331 CR	1615	≭rev	- #	Current version:	3.11.0 [#]			

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **%** symbols.

Proposed chang	ge a	affects:	UICC apps#	M	E 🗶 Radio Aco	cess Networ	k 🗶 Core Ne	twork
Title:	\mathfrak{H}	Handlin	ng of variables CELL	_INFO_	LIST and MEAS	SUREMENT	_IDENTITY(2)	
Source:	\mathfrak{H}	TSG-R	AN WG2a					
Work item code	: #	TEI				Date: ℜ	July 2002	
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Category:	ж	F			1	Release: ೫		
			of the following categor	ies:			the following rele	eases:
		١,	correction)			2	(GSM Phase 2)	
		A (0	corresponds to a correc	tion in a	n earlier release)	R96	(Release 1996)	
		B (8	addition of feature),			R97	(Release 1997)	
		C (f	unctional modification of	of feature	e)	R98	(Release 1998)	
		D (6	editorial modification)			R99	(Release 1999)	
		Detailed of	explanations of the abo	ve cate	gories can	Rel-4	(Release 4)	
		be found	in 3GPP TR 21.900.			Rel-5	(Release 5)	

Reason for change: ₩

CR's 1399, 1400 and 1401 (approved at last RAN meeting) mainly focused on the handling related to the MEASUREMENT_IDENTITY variable. Unluckily, an inconsistency related to the MEASUREMENT_IDENTITY variable was introduced (1). In addition, a backward incompatible change to the handling of the CELL_INFO_LIST was introduced (2).

Rel-6

(Release 6)

In this contribution we want to address these two issues:

1. MEASUREMENT_IDENTITY inconsistency

The above mentioned CR's intended to clarify that when reading the broadcast information in SIB11/12, the relevant information related to the intra-frequency measurement was stored in the MEASUREMENT_ INDENTITY variable. Before these CR's, the storing seemed to take place in an intermediate store, and only at transition to CELL-DCH state, the relevant information was stored in the MEASUREMENT_IDENTITY variable.

The indicated CR's do update the text on UE actions when reading SIB11/12 (8.1.1.6.11/8.1.1.6.12), however did not remove the original text in 8.4.1.7.1. Furthermore, the newly introduced text in 8.1.1.6.11/8.1.1.6.12 uses other criteria to determine what is relevant information then the text in 8.4.1.7.1.

2. Clearing of CELL_INFO_LIST

Before the above mentioned CR's were accepted, it was clear that when the UE reads SIB11, it would first clear the CELL_INFO_LIST. This enables a situation in which it is always unambiguously clear what the contents of the CELL_INFO_LIST is in the UE.

The above mentioned CR's moved the sentence indicating the clearing of the CELL_INFO_LIST, which was previously always executed when reading SIB11, under a condition stating "if in IDLE mode". This means that e.g. on cell reselection in connected mode or channel switching to CELL_FACH state, the CELL_INFO_LIST would no longer be cleared. The CELL_INFO_LIST would get a kind of history in CELL_FACH state.

That this was probably not the intention can be concluded from the fact that the same CR's, as a result of discussions on another CR (R2-020974) also included a sentence in section 13.4.0. stating: "This IE shall be cleared at cell re-selection, when leaving UTRA RRC connected mode, when switched off as well as at selection of a new PLMN."

3 - Handling of CELL_INFO_LIST on transition to CELL_DCH. If the UE performs a state transition from CELL_DCH to CELL_FACH and then back to CELL_DCH, it is not clear whether the UE should start measuring on the CELL_INFO_LIST that was acquired from system information read in CELL_FACH or the same CELL_INFO_LIST as used when the UE was previously in CELL_DCH.

Summary of change: # 1 - MEASUREMENT IDENTITY inconsistency

It is proposed to remove the concerning text from 8.4.1.7.1 which now became obsolete. To maintain alignment with the specification prior the introduction of the inconsistency, the measurement information from SIB11/12 is only stored in MEASUREMENT IDENTITY if no intra-frequency measurement has been setup or modified through MEASUREMENT CONTROL. This is corrected in section 8.1.1.6.11 and 8.1.1.6.12

2 - Clearing of CELL_INFO_LIST

It is proposed to move the concerning sentence outside the idle mode condition.

3 - Sections 8.4.1.7.1, 8.4.1.7.2 and 8.4.1.8.1 are corrected so it is clearer that the UE uses the CELL_INFO_LIST acquired from system information.

Isolated Impact Change Analysis.

Impacted functionality: Variable related measurement behaviour

Note: The corrections have no foreseen impact on the T1 test specifications.

Clarification

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W.r.t. first issue, the inconsistency in the specification is removed. W.r.t the second issue, the situation as existed before CR1399, 1400 and 1401 were accepted is restored.

Consequences if not approved:

- The inconsistency w.r.t the MEASUREMENT IDENTITY variable remains.
 - The CELL_INFO_LIST variable would not be cleared in all cases considered necessary.

Clauses affected:	8.1.1.6.11 ; 8.1.1.6.12 ; 8.4.1.7.1 , 8.4.1.7.2 , 8.4.1.8.1							
Other specs affected:	Y N X Other core specifications							
Other comments:	lpha							

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8.1.1.6.11 System Information Block type 11

The UE should store all relevant IEs included in this system information block. The UE shall:

- 1> if in idle mode:
 - 2> clear the variable MEASUREMENT_IDENTITY;
 - 2> clear the variable CELL_INFO_LIST.
- 1> if IE "FACH measurement occasion info" is included:
 - 2> act as specified in subclause 8.6.7.
- 1> else:
 - 2> may perform inter-frequency/inter-RAT measurements or inter-frequency/inter-RAT cell re-selection evaluation, if the UE capabilities permit such measurements while simultaneously receiving the S-CCPCH of the serving cell.

1> clear the variable CELL INFO LIST.

- 1> act upon the received IE "Intra-frequency cell info list"/"Inter-frequency cell info list"/"Inter-RAT cell info list" as described in subclause 8.6.7.3;
- 1> if in idle mode; or
- 1> if in connected mode and if System Information Block type 12 is not broadcast in the cell:
 - 2> if no intra-frequency measurement with the measurement identity indicated in the IE "Intra frequency measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> if included, store the IE "Intra-frequency reporting quantity" and the IE "Intra-frequency measurement reporting criteria" or "Periodical reporting criteria" in order to activate reporting when state CELL_DCH is entered in the variable MEASUREMENT_IDENTITY. The IE "Cells for measurement" is absent for this measurement. The IE "Measurement Validity" is absent for this measurement after a state transition to CELL_DCH;
- 1> if in connected mode and if System Information Block type 12 is not broadcast in the cell:
 - 2> read the IE "Traffic volume measurement information";
 - 2> if no traffic volume measurement with the measurement identity indicated in the IE "Traffic volume measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> update the variable MEASUREMENT_IDENTITY with the measurement information received in that IE.
- 1> if IE "Use of HCS" is set to "used", indicating that HCS is used, do the following:
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Intra-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Intra-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Intra-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-frequency cell info list":

- 3> for that cell use the same parameter values as used for the preceding IE "Inter-frequency cell info list".
- 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-RAT Cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
- 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-RAT cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-RAT cell info list".
- 1> if the value of the IE "Cell selection and reselection quality measure" is different from the value of the IE "Cell selection and reselection quality measure" obtained from System Information Block type 3 or System Information Block type 4:
 - 2> use the value of the IE from this System Information Block and ignore the value obtained from System Information Block type 3 or System Information Block type 4.
- 1> if in connected mode, and System Information Block type 12 is indicated as used in the cell:
 - 2> read and act on information sent in System Information Block type 12 as indicated in subclause 8.1.1.6.12.

8.1.1.6.12 System Information Block type 12

If in connected mode, the UE should store all relevant IEs included in this system information block. The UE shall:

- 1> after reception of System Information Block type 11:
 - 2> update the variable MEASUREMENT_IDENTITY with the measurement information in the received IEs unless specified otherwise.
- 1> if IE "FACH measurement occasion info" is included:
 - 2> act as specified in subclause 8.6.7.
- 1> else:
 - 2> may perform inter-frequency/inter-RAT measurements or inter-frequency/inter-RAT cell re-selection evaluation, if the UE capabilities permit such measurements while simultaneously receiving the S-CCPCH of the serving cell.
- 1> act upon the received IE "Intra-frequency cell info list"/"Inter-frequency cell info list"/"Inter-RAT cell info list" as described in subclause 8.6.7.3;
- 1> if any of the IEs "Intra-frequency measurement quantity", "Intra-frequency reporting quantity for RACH reporting", "Maximum number of reported cells on RACH" or "Reporting information for state CELL_DCH" are not included in the system information block:
 - 2> read the corresponding IE(s) in system information block type 11 and use that information for the intrafrequency measurement.
- 1> if included in this system information block or in System Information Block type 11:
 - 2> if no intra-frequency measurement in the variable MEASUREMENT_IDENTITY with the measurement identity indicated in the IE "Intra frequency measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> store the IE "Intra-frequency reporting quantity" and the IE "Intra-frequency measurement reporting criteria" or "Periodical reporting criteria" in order to activate reporting when state CELL_DCH is entered in the variable MEASUREMENT_IDENTITY. The IE "Cells for measurement" is absent for this measurement. The IE "Measurement Validity" is absent for this measurement after a state transition to CELL_DCH;
- 1> if the IE "Traffic volume measurement system information" is not included in this system information block:

- 2> read the corresponding IE in System Information Block type 11.
- 1> if the IE "Traffic volume measurement system information" was received either in this system information block or in System Information Block type 11:
 - 2> if no traffic volume measurement with the measurement identity indicated in the IE "Traffic volume measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> update the variable MEASUREMENT_IDENTITY with the measurement information received in that IE.

1> if in CELL_FACH state:

- 2> start or continue the traffic volume measurements stored in the variable MEASUREMENT_IDENTITY that are valid in CELL_FACH state.
- 1> if IE "Use of HCS" is set to "used", indicating that HCS is used, do the following:
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Intra-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Intra-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Intra-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-RAT cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-RAT cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-RAT cell info list".
- 1> if the value of the IE "Cell selection and reselection quality measure" is different from the value of the IE "Cell selection and reselection quality measure" obtained from System Information Block type 3 or System Information Block type 4:
 - 2> use the value of the IE from this System Information Block and ignore the value obtained from System Information Block type 3 or System Information Block type 4.

If in idle mode, the UE shall not use the values of the IEs in this system information block.

8.4.1.7 Measurements after transition from CELL_FACH to CELL_DCH state

The UE shall apply the following rules for different measurement types after transiting from CELL_FACH to CELL_DCH state:

8.4.1.7.1 Intra-frequency measurement

Upon transition from CELL_FACH to CELL_DCH state, the UE shall:

- 1> retrieve each set of measurement control information of measurement type "intra frequency" stored in the variable MEASUREMENT_IDENTITY;
- 1> if intra-frequency measurements applicable to CELL DCH state are stored in the variable MEASUREMENT IDENTITY:
 - 21> resume the measurement reporting;
- 1> if no intra frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT_IDENTITY:
 - 2> continue monitoring the list of neighbouring cells assigned in the IE "intra frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
 - 2> if the IE "intra frequency measurement reporting criteria" was included in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11):
 - 3> send the MEASUREMENT REPORT message when reporting criteria in IE "Reporting information for state CELL_DCH" are fulfilled.

8.4.1.7.2 Inter-frequency measurement

Upon transition from CELL_FACH to CELL_DCH state, the UE shall:

- 1> stop monitoring the list of cells assigned in the IE "inter frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
- 1> retrieve each set of measurement control information of measurement type "inter frequency" stored in the variable MEASUREMENT_IDENTITY; and
- 1> if inter-frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT_IDENTITY:
 - <u>2</u>+> resume the measurement reporting.

8.4.1.8.1 Intra-frequency measurement

Upon transition from idle mode to CELL_DCH state, the UE shall:

- 1> begin or continue monitoring the list of cells assigned in the IE "intra-frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
- 1> if the "intra frequency measurement reporting criteria" IE was included in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11):
- 1> if intra-frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT IDENTITY:
 - 2> begin measurement reporting according to the IE.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19 – 23 August 2002

CHANGE REQUEST									
#	25.331	CR 1616	жrev	-	#	Current version:	4.5.0	#	

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \$\mathbb{K}\$ symbols.

Proposed chang	ge a	affects:	UICC apps#	ME	X Radio	Acces	ss Networ	k X	Core Netv	work
Title:	\mathfrak{H}	Handlin	g of variables CELL	_INFO_I	_IST and M	1EASU	REMENT	_IDE	VTITY(2)	
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			orrection)					•	Phase 2)	
		A (0	corresponds to a correc	ction in ar	n earlier relea	ase)	R96	(Relea	ise 1996)	
		B (8	addition of feature),				R97	(Relea	ise 1997)	
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		Detailed e	explanations of the abo	ove categ	ories can		Rel-4	(Relea	ise 4)	
			in 3GPP TR 21.900.	Ū			Rel-5	, (Relea	ise 5)	

Reason for change: #

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Rel-6

(Release 6)

In this contribution we want to address these two issues:

1. MEASUREMENT_IDENTITY inconsistency

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Summary of change: # 1 - MEASUREMENT IDENTITY inconsistency

It is proposed to remove the concerning text from 8.4.1.7.1 which now became obsolete. To maintain alignment with the specification prior the introduction of the inconsistency, the measurement information from SIB11/12 is only stored in MEASUREMENT IDENTITY if no intra-frequency measurement has been setup or modified through MEASUREMENT CONTROL. This is corrected in section 8.1.1.6.11 and 8.1.1.6.12

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Impacted functionality: Variable related measurement behaviour

Note: The corrections have no foreseen impact on the T1 test specifications.

Clarification

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W.r.t. first issue, the inconsistency in the specification is removed. W.r.t the second issue, the situation as existed before CR1399, 1400 and 1401 were accepted is restored.

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Other comments:	lpha							

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- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.1.6.11 System Information Block type 11

The UE should store all relevant IEs included in this system information block. The UE shall:

- 1> if in idle mode:
 - 2> clear the variable MEASUREMENT_IDENTITY;
 - 2> clear the variable CELL_INFO_LIST.
- 1> if IE "FACH measurement occasion info" is included:
 - 2> act as specified in subclause 8.6.7.
- 1> else:
 - 2> may perform inter-frequency/inter-RAT measurements or inter-frequency/inter-RAT cell re-selection evaluation, if the UE capabilities permit such measurements while simultaneously receiving the S-CCPCH of the serving cell.

1> clear the variable CELL INFO LIST.

- 1> act upon the received IE "Intra-frequency cell info list"/"Inter-frequency cell info list"/"Inter-RAT cell info list" as described in subclause 8.6.7.3;
- 1> if in idle mode; or
- 1> if in connected mode and if System Information Block type 12 is not broadcast in the cell:
 - 2> if no intra-frequency measurement with the measurement identity indicated in the IE "Intra frequency measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> if included, store the IE "Intra-frequency reporting quantity" and the IE "Intra-frequency measurement reporting criteria" or "Periodical reporting criteria" in order to activate reporting when state CELL_DCH is entered in the variable MEASUREMENT_IDENTITY. The IE "Cells for measurement" is absent for this measurement. The IE "Measurement Validity" is absent for this measurement after a state transition to CELL_DCH;
- 1> if in connected mode and if System Information Block type 12 is not broadcast in the cell:
 - 2> read the IE "Traffic volume measurement information";
 - 2> if no traffic volume measurement with the measurement identity indicated in the IE "Traffic volume measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> update the variable MEASUREMENT_IDENTITY with the measurement information received in that IE.
- 1> if IE "Use of HCS" is set to "used", indicating that HCS is used, do the following:
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Intra-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Intra-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Intra-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-frequency cell info list":

- 3> for that cell use the same parameter values as used for the preceding IE "Inter-frequency cell info list".
- 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-RAT Cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
- 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-RAT cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-RAT cell info list".
- 1> if the value of the IE "Cell selection and reselection quality measure" is different from the value of the IE "Cell selection and reselection quality measure" obtained from System Information Block type 3 or System Information Block type 4:
 - 2> use the value of the IE from this System Information Block and ignore the value obtained from System Information Block type 3 or System Information Block type 4.
- 1> if in connected mode, and System Information Block type 12 is indicated as used in the cell:
 - 2> read and act on information sent in System Information Block type 12 as indicated in subclause 8.1.1.6.12.

8.1.1.6.12 System Information Block type 12

If in connected mode, the UE should store all relevant IEs included in this system information block. The UE shall:

- 1> after reception of System Information Block type 11:
 - 2> update the variable MEASUREMENT_IDENTITY with the measurement information in the received IEs unless specified otherwise.
- 1> if IE "FACH measurement occasion info" is included:
 - 2> act as specified in subclause 8.6.7.
- 1> else:
 - 2> may perform inter-frequency/inter-RAT measurements or inter-frequency/inter-RAT cell re-selection evaluation, if the UE capabilities permit such measurements while simultaneously receiving the S-CCPCH of the serving cell.
- 1> act upon the received IE "Intra-frequency cell info list"/"Inter-frequency cell info list"/"Inter-RAT cell info list" as described in subclause 8.6.7.3;
- 1> if any of the IEs "Intra-frequency measurement quantity", "Intra-frequency reporting quantity for RACH reporting", "Maximum number of reported cells on RACH" or "Reporting information for state CELL_DCH" are not included in the system information block:
 - 2> read the corresponding IE(s) in system information block type 11 and use that information for the intrafrequency measurement.
- 1> if included in this system information block or in System Information Block type 11:
 - 2> if no intra-frequency measurement in the variable MEASUREMENT_IDENTITY with the measurement identity indicated in the IE "Intra frequency measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> store the IE "Intra-frequency reporting quantity" and the IE "Intra-frequency measurement reporting criteria" or "Periodical reporting criteria" in order to activate reporting when state CELL_DCH is entered in the variable MEASUREMENT_IDENTITY. The IE "Cells for measurement" is absent for this measurement. The IE "Measurement Validity" is absent for this measurement after a state transition to CELL_DCH;
- 1> if the IE "Traffic volume measurement system information" is not included in this system information block:

- 2> read the corresponding IE in System Information Block type 11.
- 1> if the IE "Traffic volume measurement system information" was received either in this system information block or in System Information Block type 11:
 - 2> if no traffic volume measurement with the measurement identity indicated in the IE "Traffic volume measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> update the variable MEASUREMENT_IDENTITY with the measurement information received in that IE.

1> if in CELL_FACH state:

- 2> start or continue the traffic volume measurements stored in the variable MEASUREMENT_IDENTITY that are valid in CELL_FACH state.
- 1> if IE "Use of HCS" is set to "used", indicating that HCS is used, do the following:
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Intra-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Intra-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Intra-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-RAT cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-RAT cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-RAT cell info list".
- 1> if the value of the IE "Cell selection and reselection quality measure" is different from the value of the IE "Cell selection and reselection quality measure" obtained from System Information Block type 3 or System Information Block type 4:
 - 2> use the value of the IE from this System Information Block and ignore the value obtained from System Information Block type 3 or System Information Block type 4.

If in idle mode, the UE shall not use the values of the IEs in this system information block.

8.4.1.7 Measurements after transition from CELL_FACH to CELL_DCH state

The UE shall apply the following rules for different measurement types after transiting from CELL_FACH to CELL_DCH state:

8.4.1.7.1 Intra-frequency measurement

Upon transition from CELL_FACH to CELL_DCH state, the UE shall:

- 1> retrieve each set of measurement control information of measurement type "intra frequency" stored in the variable MEASUREMENT_IDENTITY;
- 1> if intra-frequency measurements applicable to CELL DCH state are stored in the variable MEASUREMENT IDENTITY:
 - $\underline{24}$ > resume the measurement reporting;
- 1> if no intra frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT_IDENTITY:
 - 2> continue monitoring the list of neighbouring cells assigned in the IE "intra frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
 - 2> if the IE "intra frequency measurement reporting criteria" was included in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11):
 - 3> send the MEASUREMENT REPORT message when reporting criteria in IE "Reporting information for state CELL_DCH" are fulfilled.

8.4.1.7.2 Inter-frequency measurement

Upon transition from CELL_FACH to CELL_DCH state, the UE shall:

- 1> stop monitoring the list of cells assigned in the IE "inter frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
- 1> retrieve each set of measurement control information of measurement type "inter frequency" stored in the variable MEASUREMENT_IDENTITY; and
- 1> if inter-frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT_IDENTITY:
 - <u>2</u>+> resume the measurement reporting.

8.4.1.8.1 Intra-frequency measurement

Upon transition from idle mode to CELL_DCH state, the UE shall:

- 1> begin or continue monitoring the list of cells assigned in the IE "intra-frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
- 1> if the "intra frequency measurement reporting criteria" IE was included in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11):
- 1> if intra-frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT IDENTITY:
 - 2> begin measurement reporting according to the IE.

3GPP TSG-RAN WG2 Meeting #31 Stockholm, Sweden, 19 – 23 August 2002

	CHANGE REQUEST									
*	25.331	CR <mark>1617</mark>	жrev	- #	Current version:	5.1.0	*			

For **HELP** on using this form, see bottom of this page or look at the pop-up text over the \$\mathbb{K}\$ symbols.

Proposed chang	ge a	affects:	UICC apps#	ME	X Radio	Acces	s Networ	k X	Core Netw	vork
Title:	\mathfrak{H}	Handlin	g of variables CELL	_INFO_I	IST and M	EASU	REMENT	_IDE	VTITY(2)	
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		B (a	addition of feature),				R97	(Relea	ise 1997)	
		C (f	unctional modification	of feature)		R98	(Relea	ise 1998)	
		D (6	editorial modification)				R99	(Relea	se 1999)	
		Detailed 6	explanations of the abo	ve categ	ories can		Rel-4	(Relea	ise 4)	
		be found	in 3GPP TR 21.900.	·			Rel-5	Relea	ise 5)	

Reason for change: #

CR's 1399, 1400 and 1401 (approved at last RAN meeting) mainly focused on the handling related to the MEASUREMENT_IDENTITY variable. Unluckily, an inconsistency related to the MEASUREMENT_IDENTITY variable was introduced (1). In addition, a backward incompatible change to the handling of the CELL_INFO_LIST was introduced (2).

Rel-6

(Release 6)

In this contribution we want to address these two issues:

1. MEASUREMENT_IDENTITY inconsistency

The above mentioned CR's intended to clarify that when reading the broadcast information in SIB11/12, the relevant information related to the intra-frequency measurement was stored in the MEASUREMENT_ INDENTITY variable. Before these CR's, the storing seemed to take place in an intermediate store, and only at transition to CELL-DCH state, the relevant information was stored in the MEASUREMENT_IDENTITY variable.

The indicated CR's do update the text on UE actions when reading SIB11/12 (8.1.1.6.11/8.1.1.6.12), however did not remove the original text in 8.4.1.7.1. Furthermore, the newly introduced text in 8.1.1.6.11/8.1.1.6.12 uses other criteria to determine what is relevant information then the text in 8.4.1.7.1.

2. Clearing of CELL_INFO_LIST

Before the above mentioned CR's were accepted, it was clear that when the UE reads SIB11, it would first clear the CELL_INFO_LIST. This enables a situation in which it is always unambiguously clear what the contents of the CELL_INFO_LIST is in the UE.

The above mentioned CR's moved the sentence indicating the clearing of the CELL_INFO_LIST, which was previously always executed when reading SIB11, under a condition stating "if in IDLE mode". This means that e.g. on cell reselection in connected mode or channel switching to CELL_FACH state, the CELL_INFO_LIST would no longer be cleared. The CELL_INFO_LIST would get a kind of history in CELL_FACH state.

That this was probably not the intention can be concluded from the fact that the same CR's, as a result of discussions on another CR (R2-020974) also included a sentence in section 13.4.0. stating: "This IE shall be cleared at cell re-selection, when leaving UTRA RRC connected mode, when switched off as well as at selection of a new PLMN."

3 - Handling of CELL_INFO_LIST on transition to CELL_DCH. If the UE performs a state transition from CELL_DCH to CELL_FACH and then back to CELL_DCH, it is not clear whether the UE should start measuring on the CELL_INFO_LIST that was acquired from system information read in CELL_FACH or the same CELL_INFO_LIST as used when the UE was previously in CELL_DCH.

Summary of change: # 1 - MEASUREMENT IDENTITY inconsistency

It is proposed to remove the concerning text from 8.4.1.7.1 which now became obsolete. To maintain alignment with the specification prior the introduction of the inconsistency, the measurement information from SIB11/12 is only stored in MEASUREMENT IDENTITY if no intra-frequency measurement has been setup or modified through MEASUREMENT CONTROL. This is corrected in section 8.1.1.6.11 and 8.1.1.6.12

2 - Clearing of CELL_INFO_LIST

It is proposed to move the concerning sentence outside the idle mode condition.

3 - Sections 8.4.1.7.1, 8.4.1.7.2 and 8.4.1.8.1 are corrected so it is clearer that the UE uses the CELL_INFO_LIST acquired from system information.

Isolated Impact Change Analysis.

Impacted functionality: Variable related measurement behaviour

Note: The corrections have no foreseen impact on the T1 test specifications.

Clarification

 \mathfrak{R}

W.r.t. first issue, the inconsistency in the specification is removed. W.r.t the second issue, the situation as existed before CR1399, 1400 and 1401 were accepted is restored.

Consequences if not approved:

- The inconsistency w.r.t the MEASUREMENT IDENTITY variable remains.
 - The CELL_INFO_LIST variable would not be cleared in all cases considered necessary.

Clauses affected:	8.1.1.6.11 ; 8.1.1.6.12 ; 8.4.1.7.1 , 8.4.1.7.2 , 8.4.1.8.1							
Other specs affected:	Y N X Other core specifications							
Other comments:	lpha							

How to create CRs using this form:

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- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.1.6.11 System Information Block type 11

The UE should store all relevant IEs included in this system information block. The UE shall:

- 1> if in idle mode:
 - 2> clear the variable MEASUREMENT_IDENTITY;
 - 2> clear the variable CELL_INFO_LIST.
- 1> if IE "FACH measurement occasion info" is included:
 - 2> act as specified in subclause 8.6.7.
- 1> else:
 - 2> may perform inter-frequency/inter-RAT measurements or inter-frequency/inter-RAT cell re-selection evaluation, if the UE capabilities permit such measurements while simultaneously receiving the S-CCPCH of the serving cell.

1> clear the variable CELL INFO LIST.

- 1> act upon the received IE "Intra-frequency cell info list"/"Inter-frequency cell info list"/"Inter-RAT cell info list" as described in subclause 8.6.7.3;
- 1> if in idle mode; or
- 1> if in connected mode and if System Information Block type 12 is not broadcast in the cell:
 - 2> if no intra-frequency measurement with the measurement identity indicated in the IE "Intra frequency measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> if included, store the IE "Intra-frequency reporting quantity" and the IE "Intra-frequency measurement reporting criteria" or "Periodical reporting criteria" in order to activate reporting when state CELL_DCH is entered in the variable MEASUREMENT_IDENTITY. The IE "Cells for measurement" is absent for this measurement. The IE "Measurement Validity" is absent for this measurement after a state transition to CELL_DCH;
- 1> if in connected mode and if System Information Block type 12 is not broadcast in the cell:
 - 2> read the IE "Traffic volume measurement information";
 - 2> if no traffic volume measurement with the measurement identity indicated in the IE "Traffic volume measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> update the variable MEASUREMENT_IDENTITY with the measurement information received in that IE.
- 1> if IE "Use of HCS" is set to "used", indicating that HCS is used, do the following:
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Intra-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Intra-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Intra-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-frequency cell info list":

- 3> for that cell use the same parameter values as used for the preceding IE "Inter-frequency cell info list".
- 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-RAT Cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
- 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-RAT cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-RAT cell info list".
- 1> if the value of the IE "Cell selection and reselection quality measure" is different from the value of the IE "Cell selection and reselection quality measure" obtained from System Information Block type 3 or System Information Block type 4:
 - 2> use the value of the IE from this System Information Block and ignore the value obtained from System Information Block type 3 or System Information Block type 4.
- 1> if in connected mode, and System Information Block type 12 is indicated as used in the cell:
 - 2> read and act on information sent in System Information Block type 12 as indicated in subclause 8.1.1.6.12.

8.1.1.6.12 System Information Block type 12

If in connected mode, the UE should store all relevant IEs included in this system information block. The UE shall:

- 1> after reception of System Information Block type 11:
 - 2> update the variable MEASUREMENT_IDENTITY with the measurement information in the received IEs unless specified otherwise.
- 1> if IE "FACH measurement occasion info" is included:
 - 2> act as specified in subclause 8.6.7.
- 1> else:
 - 2> may perform inter-frequency/inter-RAT measurements or inter-frequency/inter-RAT cell re-selection evaluation, if the UE capabilities permit such measurements while simultaneously receiving the S-CCPCH of the serving cell.
- 1> act upon the received IE "Intra-frequency cell info list"/"Inter-frequency cell info list"/"Inter-RAT cell info list" as described in subclause 8.6.7.3;
- 1> if any of the IEs "Intra-frequency measurement quantity", "Intra-frequency reporting quantity for RACH reporting", "Maximum number of reported cells on RACH" or "Reporting information for state CELL_DCH" are not included in the system information block:
 - 2> read the corresponding IE(s) in system information block type 11 and use that information for the intrafrequency measurement.
- 1> if included in this system information block or in System Information Block type 11:
 - 2> if no intra-frequency measurement in the variable MEASUREMENT_IDENTITY with the measurement identity indicated in the IE "Intra frequency measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> store the IE "Intra-frequency reporting quantity" and the IE "Intra-frequency measurement reporting criteria" or "Periodical reporting criteria" in order to activate reporting when state CELL_DCH is entered in the variable MEASUREMENT_IDENTITY. The IE "Cells for measurement" is absent for this measurement. The IE "Measurement Validity" is absent for this measurement after a state transition to CELL_DCH;
- 1> if the IE "Traffic volume measurement system information" is not included in this system information block:

- 2> read the corresponding IE in System Information Block type 11.
- 1> if the IE "Traffic volume measurement system information" was received either in this system information block or in System Information Block type 11:
 - 2> if no traffic volume measurement with the measurement identity indicated in the IE "Traffic volume measurement system information" was set up or modified through a MEASUREMENT CONTROL message:
 - 3> update the variable MEASUREMENT_IDENTITY with the measurement information received in that IE.

1> if in CELL_FACH state:

- 2> start or continue the traffic volume measurements stored in the variable MEASUREMENT_IDENTITY that are valid in CELL_FACH state.
- 1> if IE "Use of HCS" is set to "used", indicating that HCS is used, do the following:
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Intra-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Intra-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Intra-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-frequency cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-frequency cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-frequency cell info list".
 - 2> if IE "HCS neighbouring cell information" is not included in the first occurrence of IE "Inter-RAT cell info list":
 - 3> use the default values specified for the IE "HCS neighbouring cell information" for that cell.
 - 2> if IE "HCS neighbouring cell information" is not included in other occurrence of IE "Inter-RAT cell info list":
 - 3> for that cell use the same parameter values as used for the preceding IE "Inter-RAT cell info list".
- 1> if the value of the IE "Cell selection and reselection quality measure" is different from the value of the IE "Cell selection and reselection quality measure" obtained from System Information Block type 3 or System Information Block type 4:
 - 2> use the value of the IE from this System Information Block and ignore the value obtained from System Information Block type 3 or System Information Block type 4.

If in idle mode, the UE shall not use the values of the IEs in this system information block.

8.4.1.7 Measurements after transition from CELL_FACH to CELL_DCH state

The UE shall apply the following rules for different measurement types after transiting from CELL_FACH to CELL_DCH state:

8.4.1.7.1 Intra-frequency measurement

Upon transition from CELL_FACH to CELL_DCH state, the UE shall:

- 1> retrieve each set of measurement control information of measurement type "intra frequency" stored in the variable MEASUREMENT_IDENTITY;
- 1> if intra-frequency measurements applicable to CELL DCH state are stored in the variable MEASUREMENT IDENTITY:
 - $\underline{24}$ > resume the measurement reporting;
- 1> if no intra frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT_IDENTITY:
 - 2> continue monitoring the list of neighbouring cells assigned in the IE "intra frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
 - 2> if the IE "intra frequency measurement reporting criteria" was included in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11):
 - 3> send the MEASUREMENT REPORT message when reporting criteria in IE "Reporting information for state CELL_DCH" are fulfilled.

8.4.1.7.2 Inter-frequency measurement

Upon transition from CELL_FACH to CELL_DCH state, the UE shall:

- 1> stop monitoring the list of cells assigned in the IE "inter frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
- 1> retrieve each set of measurement control information of measurement type "inter frequency" stored in the variable MEASUREMENT_IDENTITY; and
- 1> if inter-frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT_IDENTITY:
 - <u>2</u>+> resume the measurement reporting.

8.4.1.8.1 Intra-frequency measurement

Upon transition from idle mode to CELL_DCH state, the UE shall:

- 1> begin or continue monitoring the list of cells assigned in the IE "intra-frequency cell info list" in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11);
- 1> if the "intra frequency measurement reporting criteria" IE was included in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11):
- 1> if intra-frequency measurements applicable to CELL_DCH state are stored in the variable MEASUREMENT IDENTITY:
 - 2> begin measurement reporting according to the IE.

3GPP RAN- WG2 Meeting #31 Arlanda, Sweden, 19th – 23rd August 2002

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Category:	**	Use or FABCCD	(correc (corres (additio (function (editori	e following cation) sponds to a confection on of feature onal modification ations of the	correction in), ation of featu on) e above cate	ure)		lease	2	of the to (GS (Re (Re (Re (Re	99 following rele M Phase 2) lease 1996) lease 1997) lease 1998) lease 4) lease 5)	ases:
Reason for ch	nange	e: #	The ori	ginal version	on of this C	R inclu	uded	the f	ollowing ch	anges	S:	
			0.5.40	0	000011	. 1			_	_		

8.5.19 Secondary CCPCH selection

The SCCPCH configuration contained in SIB 6 may be a delta as compared to SIB 5. This means that the SCCPCH configuration contained in SIB 6 may not include an SCCPCH carrying a PCH. It is obvious that in CELL_PCH and URA_PCH states the UE shall only consider the SCCPCH information in SIB 6 for performing SCCPCH selection if it includes an SCCPCH carrying a PCH. Since this is not clear from the current text, some clarification is added.

Revision 1 of this CR includes the following additional changes:

8.5.17 PRACH selection

Wrong range for rand function in Random access procedure: if the rand value is 1, Index of selected PRACH is out of range

Furthermore, the use of SIB 5 and 6 for RACH selection was not specified ambiguously, as was the case for the SCCPCH selection

Summary of change: # This CR includes the following changes:

8.5.19 Secondary CCPCH selection

Clarification is added that a UE in CELL_PCH and URA_PCH states shall only consider the SCCPCH information in SIB 6 for performing SCCPCH selection if it includes an SCCPCH carrying a PCH. A similar correction has been performed for CELL_FACH state.

8.5.17 PRACH selection

Correction of the rand function range in the chapter 8.5.17: $0 \le \text{rand} < 1$ Furthermore, the RACH selection specification has been restructured in a similar manner as done for the SCCPCH selection

Impact analysis:

For 8.5.17:

Impacted functionality: UE behaviour for RACH selection

This change concerns a detail that is likely to be correctly implemented. UEs not complying with the CR do not work in this detail.

For 8.5.19:

Impacted functionality: Secondary CCPCH selection in CELL_PCH and URA_PCH states when SIB 6 is used but does not include a SCCPCH carrying PCH

<u>Correction type</u>: Clarification of a function where the specification is ambiguous. Does not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise

Interoperability:

- Isolated impact: the impact is isolated; only the corrected functionality is affected
- CR implemented only by UTRAN or only by the UE: If UTRAN applies SIB 6 but does not include a SCCPCH carrying PCH, the paging of a UE in CELL PCH and URA PCH may result not work

Consequences if not approved:

Unclarity regarding the use of SCCPCH information contained in SIB 5 & SIB 6 for SCCPCH selection remains

If not corrected and function rand returns value 1, the UE will choose PRACH which is out of range

Clauses affected:	8.5.17 , 8.5.19
Other specs affected:	# Other core specifications # Test specifications O&M Specifications
Other comments:	*

How to create CRs using this form:

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- 1) Fill out the above form. The symbols above marked \$\mathbb{X}\$ contain pop-up help information about the field that they are closest to.
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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.5.17 PRACH selection

For this version of the specification, when a UE selects a cell, the uplink frequency to be used for the initial PRACH transmission shall have a default duplex frequency spacing offset from the downlink frequency that the cell was selected on. The default duplex frequency separation to be used by the UE is specified in [35] (for FDD only).

The UE shall select a "PRACH system information" according to the following rule. The UE shall:

- 1> select a default "PRACH system information" from the ones indicated in the IE "PRACH system information list" in System Information Block type 5 (applicable in Idle Mode and Connected Mode) or System Information Block type 6 (applicable in Connected Mode only), as follows:
 - 2>if in connected mode and System Information Block type 6 is defined and includes PRACH info:
 - 3> compile a list of candidate PRACHs that consists of the PRACH system information(s) listed in SIB 6, in the order of appearance as in SIB 6

2>otherwise:

- 3> compile a list of candidate PRACHs that consists of the PRACH system information(s) listed in SIB 5, in the order of appearance as in SIB 5
- 2> if both RACH with 10 ms and 20 ms TTI are <u>included in the list of candidate PRACH(s) indicated in System Information Block type 5 or System Information Block type 6</u>:
 - 3> select the appropriate TTI based on power requirements, as specified in subclause 8.5.18.
 - 3> remove PRACHs system information(s) from the list of candidate PRACHs that have a TTI different from the selected value
- 2> select a "PRACH system information" randomly from the <u>list of candidate PRACH(s)</u>ones listed in System Information Block type 5 or System Information Block type 6-as follows:

"Index of selected PRACH" = floor (rand * K)

where K is equal to the number of <u>listed-candidate</u> PRACH system informations that carry an RACH with the above selected TTI, "rand" is a random number uniformly distributed in the range $0 \le \text{rand} < \frac{1}{1}$, and "floor" refers to rounding down to nearest integer. <u>PRACH system informations carrying RACHs</u> with 10 and 20 ms TTI shall be counted separately. These <u>candidate</u> PRACH system informations shall be indexed from 0 to K-1 in the order of their occurrence in System Information Block type 5 or System Information Block type 6. The random number generator is left to implementation. The scheme shall be implemented such that one of the available PRACH system informations is randomly selected with uniform probability. At start-up of the random number generator in the UE the seed shall be dependent on the IMSI of the UE or time, thereby avoiding that all UEs select the same RACH;

2> in Connected mode:

- 3> select the PRACH according to the following preference:
 - 4> if System Information Block type 6 is defined and PRACH info is included:
 - 5> select PRACH from the PRACHs listed in System Information Block type 6.
 - 4> if System Information Block type 6 is defined and no PRACH info is included:
 - 5> select PRACH from the PRACHs listed in System Information Block type 5.
 - 4> if no System Information Block type 6 is defined:
 - 5> select PRACH from the PRACHs listed in System Information Block type 5.
- 2> reselect the default PRACH system information when a new cell is selected. RACH reselection may also be performed after each transmission of a Transport Block Set on RACH.
- 1> for emergency call, the UE is allowed to select any of the available PRACH system informations.

After selecting a PRACH system information, the RRC in the UE shall configure the MAC and the physical layer for the RACH access according to the parameters included in the selected "PRACH system information" IE.

8.5.19 Secondary CCPCH selection

In UTRAN Connected mode, the UE shall select the Secondary CCPCH according to the following rules:

- 1> in Cell_DCH state:
 - 2> select Secondary CCPCH according to subclause 8.6.6.4.
- 1> in Cell FACH state:
 - 2> if SIB 6 is defined and includes one or more SCCPCH that carry a FACH, (the UE shall) compile a list of candidate SCCPCH that consists of these SCCPCH, in the order of appearance in SIB 6
- NOTE 1: An SCCPCH carries a FACH if the size of the "FACH/PCH information" list within the IE "Secondary CCPCH system information" exceeds 1 or if the size of this list equals 1 while IE "Secondary CCPCH system information" does not contain an IE "PICH info"
 - 2> otherwise (the UE shall) compile a list of candidate SCCPCH that consists of the SCCPCH(s) included in SIB 5 that that carry a FACH, in the order of appearance in SIB 5
 - 2> select an SCCPCH from the <u>list of candidate</u> SCCPCHs listed in SIB 5 or SIB 6-based on U-RNTI as follows:

"Index of selected SCCPCH" = U-RNTI mod K,

where K is equal to the number of listed candidate SCCPCHs that carry a FACH (i.e., SCCPCHs carrying PCH only shall not be counted). These SCCPCHs shall be indexed from 0 to K. 1in the order of their occurrence in SIB 5 or SIB 6. "Index of selected SCCPCH" identifies the selected SCCPCH.

- 2> if SIB 6 is defined and SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 6.
- 2> if SIB 6 is defined and no SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 2> if no SIB 6 is defined:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 1> in Cell PCH and URA PCH states:
 - 2> if SIB 6 is defined and includes one or more SCCPCH that carry a PCH, (the UE shall) compile a list of candidate SCCPCH that consists of these SCCPCH, in the order of appearance in SIB 6
- NOTE 2: An SCCPCH carries a PCH if the IE "Secondary CCPCH system information" contains IE "PICH info"
 - 2> otherwise (the UE shall) compile a list of candidate SCCPCH that consists of the SCCPCH(s) included in SIB 5 that that carry a PCH, in the order of appearance in SIB 5
 - 2> select an SCCPCH from the <u>list of candidate</u> SCCPCHs listed in SIB-5 or SIB-6-based on U-RNTI as follows:

"Index of selected SCCPCH" = U-RNTI mod K,

where K is equal to the number of <u>listed candidate</u> SCCPCHs that carry a PCH (i.e., SCCPCHs carrying FACH only shall not be counted). These SCCPCHs shall be indexed in the order of their occurrence in system information from 0 to K-1, and "Index of selected SCCPCH" identifies the selected SCCPCH.

- 2> if SIB 6 is defined and SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 6.
- 2> if SIB 6 is defined and no SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 2> if no SIB 6 is defined:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.

UE shall set CFN in relation to SFN of current cell according to subclause 8.5.15.

The UE shall support reception of all transport formats on all FACHs multiplexed on the selected S-CCPCH.

3GPP RAN- WG2 Meeting #31 Arlanda, Sweden, 19th – 23rd August 2002

	CR-Form-v6.1 CHANGE REQUEST
g g	
" <mark>13</mark>	25.331 CR 1619 # rev 1 # Current version: 4.5.0 # #
For <u>HELP</u> on us	sing this form, see bottom of this page or look at the pop-up text over the X symbols.
Proposed change a	ffects: 第 (U)SIM ME/UE X Radio Access Network Core Network
Title: ∺	Correction of secondary CCPCH selection and PRACH selection
Source: #	TSG-RAN WG2
Work item code: ₩	TEI Date: 第 14/08/2002
Category: #	Release: # REL-4
	Use <u>one</u> of the following categories: Use <u>one</u> of the following releases: (GSM Phase 2)
	A (corresponds to a correction in an earlier release) R96 (Release 1996)
	B (addition of feature),R97 (Release 1997)C (functional modification of feature)R98 (Release 1998)
	D (editorial modification) R99 (Release 1999)
	Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5)
	De Touriu III 3GFF IN 21.900.
Reason for change:	* # The original version of this CR included the following changes:
	8.5.19 Secondary CCPCH selection The SCCPCH configuration contained in SIB 6 may be a delta as compared to SIB 5. This means that the SCCPCH configuration contained in SIB 6 may not include an SCCPCH carrying a PCH. It is obvious that in CELL_PCH and URA_PCH states the UE shall only consider the SCCPCH information in SIB 6 for performing SCCPCH selection if it includes an SCCPCH carrying a PCH. Since this is not clear from the current text, some clarification is added.
	Revision 1 of this CR includes the following additional changes:
	8.5.17 PRACH selection Wrong range for rand function in Random access procedure: if the rand value is 1, Index of selected PRACH is out of range Furthermore, the use of SIB 5 and 6 for RACH selection was not specified ambiguously, as was the case for the SCCPCH selection
Summary of change	e: This CR includes the following changes:
	8.5.19 Secondary CCPCH selection Clarification is added that a UE in CELL_PCH and URA_PCH states shall only consider the SCCPCH information in SIB 6 for performing SCCPCH selection if it includes an SCCPCH carrying a PCH. A similar correction has been performed for CELL_FACH state
	8.5.17 PRACH selection
	Correction of the rand function range in the chapter 8.5.17: 0 ≤ rand < 1 Furthermore, the RACH selection specification has been restructured in a similar

	manner as done for the SCCPCH selection
Consequences if not approved:	# Unclarity regarding the use of SCCPCH information contained in SIB 5 & SIB 6 for SCCPCH selection remains If not corrected and function rand returns value 1, the UE will choose PRACH
	which is out of range
Clauses affected:	第 8.5.17, 8.5.19
Other specs affected:	# Other core specifications Test specifications O&M Specifications
Other comments:	*

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

<Start of modified section>

8.5.17 PRACH selection

For this version of the specification, when a UE selects a cell, the uplink frequency to be used for the initial PRACH transmission shall have a default duplex frequency spacing offset from the downlink frequency that the cell was selected on. The default duplex frequency separation to be used by the UE is specified in [35] (for FDD only).

The UE shall select a "PRACH system information" according to the following rule. The UE shall:

- 1> select a default "PRACH system information" from the ones indicated in the IE "PRACH system information list" in System Information Block type 5 (applicable in Idle Mode and Connected Mode) or System Information Block type 6 (applicable in Connected Mode only), as follows:
 - 2>if in connected mode and System Information Block type 6 is defined and includes PRACH info:
 - 3> compile a list of candidate PRACHs that consists of the PRACH system information(s) listed in SIB 6, in the order of appearance as in SIB 6

2>otherwise:

- 3> compile a list of candidate PRACHs that consists of the PRACH system information(s) listed in SIB 5, in the order of appearance as in SIB 5
- 2> in FDD:
 - 3> if both RACH with 10 ms and 20 ms TTI are <u>included in the list of candidate PRACH(s)</u>indicated in System Information Block type 5 or System Information Block type 6:
 - 4> select the appropriate TTI based on power requirements, as specified in subclause 8.5.18.
 - 4> remove PRACHs system information(s) from the list of candidate PRACHs that have a TTI different from the selected value
- 2> in 1.28 Mcps TDD:
 - 3> if RACH with 5 ms, 10 ms and 20 ms TTI are <u>included in the list of candidate PRACH(s)</u>indicated in System Information Block type 5 or System Information Block Type 6:
 - 4> select the TTI according to 8.5.18.2.
 - 4> remove PRACHs system information(s) from the list of candidate PRACHs that have a TTI different from the selected value
- 2> select a "PRACH system information" randomly from the <u>list of candidate PRACH(s)</u>ones listed in System Information Block type 5 or System Information Block type 6 as follows:

"Index of selected PRACH" = floor (rand * K)

where K is equal to the number of <u>listed-candidate</u> PRACH system informations that carry an RACH with the above selected TTI, "rand" is a random number uniformly distributed in the range 0,...,1, and "floor" refers to rounding down to nearest integer. <u>PRACH system informations carrying RACHs with 10 and 20 ms TTI shall be counted separately.</u> These <u>candidate</u> PRACH system informations shall be indexed from 0 to K-1 in the order of their occurrence in <u>System Information Block type 5 or System Information</u> <u>Block type 6</u>. The random number generator is left to implementation. The scheme shall be implemented such that one of the available PRACH system informations is randomly selected with uniform probability. At start-up of the random number generator in the UE the seed shall be dependent on the IMSI of the UE or time, thereby avoiding that all UEs select the same RACH;

2> in Connected mode:

- 3> select the PRACH according to the following preference:
 - 4> if System Information Block type 6 is defined and PRACH info is included:

- 5> select PRACH from the PRACHs listed in System Information Block type 6.
- 4> if System Information Block type 6 is defined and no PRACH info is included:
 - 5> select PRACH from the PRACHs listed in System Information Block type 5.
- 4> if no System Information Block type 6 is defined:
 - 5> select PRACH from the PRACHs listed in System Information Block type 5.
- 2> reselect the default PRACH system information when a new cell is selected. RACH reselection may also be performed after each transmission of a Transport Block Set on RACH.
- 1> for emergency call, the UE is allowed to select any of the available PRACH system informations.

After selecting a PRACH system information, the RRC in the UE shall configure the MAC and the physical layer for the RACH access according to the parameters included in the selected "PRACH system information" IE.

8.5.19 Secondary CCPCH selection

In UTRAN Connected mode, the UE shall select the Secondary CCPCH according to the following rules:

- 1> in Cell DCH state:
 - 2> select Secondary CCPCH according to subclause 8.6.6.4.
- 1> in Cell FACH state:
 - 2> if SIB 6 is defined and includes one or more SCCPCH that carry a FACH, (the UE shall) compile a list of candidate SCCPCH that consists of these SCCPCH, in the order of appearance in SIB 6
- NOTE 1: An SCCPCH carries a FACH if the size of the "FACH/PCH information" list within the IE "Secondary CCPCH system information" exceeds 1 or if the size of this list equals 1 while IE "Secondary CCPCH system information" does not contain an IE "PICH info"
 - 2> otherwise (the UE shall) compile a list of candidate SCCPCH that consists of the SCCPCH(s) included in SIB 5 that that carry a FACH, in the order of appearance in SIB 5
 - 2> select an SCCPCH from the <u>list of candidate</u> SCCPCHs listed in SIB 5 or SIB 6-based on U-RNTI as follows:

"Index of selected SCCPCH" = U-RNTI mod K,

where K is equal to the number of listed candidate SCCPCHs that carry a FACH (i.e., SCCPCHs carrying PCH only shall not be counted). These SCCPCHs shall be indexed from 0 to K. I in the order of their occurrence in SIB 5 or SIB 6. "Index of selected SCCPCH" identifies the selected SCCPCH.

- 2> if SIB 6 is defined and SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 6.
- 2> if SIB 6 is defined and no SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 2> if no SIB 6 is defined:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 1> in Cell_PCH and URA_PCH states:
 - 2> if SIB 6 is defined and includes one or more SCCPCH that carry a PCH, (the UE shall) compile a list of candidate SCCPCH that consists of these SCCPCH, in the order of appearance in SIB 6
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 - 2> select an SCCPCH from the <u>list of candidate</u> SCCPCHs listed in SIB 5 or SIB 6 based on U-RNTI as follows:

"Index of selected SCCPCH" = U-RNTI mod K,

where K is equal to the number of <u>listed-candidate</u> SCCPCHs that carry a PCH (i.e., SCCPCHs carrying FACH only shall not be counted). These SCCPCHs shall be indexed in the order of their occurrence in system information from 0 to K-1, and "Index of selected SCCPCH" identifies the selected SCCPCH.

- 2> if SIB 6 is defined and SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 6.
- 2> if SIB 6 is defined and no SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.

2> if no SIB 6 is defined:

3> select SCCPCH from the SCCPCHs listed in SIB 5.

UE shall set CFN in relation to SFN of current cell according to subclause 8.5.15.

The UE shall support reception of all transport formats on all FACHs multiplexed on the selected S-CCPCH.

3GPP RAN- WG2 Meeting #31 Arlanda, Sweden, 19th – 23rd August 2002

	CHANGE REQUEST	R-Form-v6.1
# TS 2	5.331 CR 1620	*
		*
For <u>HELP</u> on using	g this form, see bottom of this page or look at the pop-up text over the $lpha$ sym	ibols.
Proposed change affect	ects: # (U)SIM ME/UE X Radio Access Network Core Net	twork
Title: 第 Co	Correction of secondary CCPCH selection and PRACH selection	
Source: # TS	SG-RAN WG2	
Work item code:	El Date: 第 14/08/2002	
Det	Release: # REL-5 te one of the following categories: F (correction) A (corresponds to a correction in an earlier release) B (addition of feature), C (functional modification of feature) D (editorial modification) ptailed explanations of the above categories can found in 3GPP TR 21.900. REL-5 Use one of the following release. R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)	ases:
Reason for change: #	* The original version of this CR included the following changes:	
Reason for change.	8.5.19 Secondary CCPCH selection The SCCPCH configuration contained in SIB 6 may be a delta as compar SIB 5. This means that the SCCPCH configuration contained in SIB 6 may include an SCCPCH carrying a PCH. It is obvious that in CELL_PCH and URA_PCH states the UE shall only consider the SCCPCH information in for performing SCCPCH selection if it includes an SCCPCH carrying a PC Since this is not clear from the current text, some clarification is added. Revision 1 of this CR includes the following additional changes: 8.5.17 PRACH selection Wrong range for rand function in Random access procedure: if the rand v 1, Index of selected PRACH is out of range Furthermore, the use of SIB 5 and 6 for RACH selection was not specified ambiguously, as was the case for the SCCPCH selection	sy not SIB 6 CH.
Summary of change: ₩	The original version of this CR included the following changes: 8.5.19 Secondary CCPCH selection Clarification is added that a UE in CELL_PCH and URA_PCH states shall consider the SCCPCH information in SIB 6 for performing SCCPCH selectincludes an SCCPCH carrying a PCH. A similar correction has been perfor CELL_FACH state Revision 1 of this CR includes the following additional changes: Revision 1 of this CR includes the following additional changes:	ction if it

8.5.17 PRACH selection

Correction of the rand function range in the chapter 8.5.17: 0 ≤ rand < 1
Furthermore, the RACH selection specification has been restructured in a similar manner as done for the SCCPCH selection

Consequences if not approved:

Unclarity regarding the use of SCCPCH information contained in SIB 5 & SIB 6 for SCCPCH selection remains
If not corrected and function rand returns value 1, the UE will choose PRACH which is out of range

Clauses affected:	第 8.5.17, 8.5.19
Other specs affected:	Contractions Test specifications O&M Specifications
Other comments:	¥

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<Start of modified section>

8.5.17 PRACH selection

For this version of the specification, when a UE selects a cell, the uplink frequency to be used for the initial PRACH transmission shall have a default duplex frequency spacing offset from the downlink frequency that the cell was selected on. The default duplex frequency separation to be used by the UE is specified in [35] (for FDD only).

The UE shall select a "PRACH system information" according to the following rule. The UE shall:

- 1> select a default "PRACH system information" from the ones indicated in the IE "PRACH system information list" in System Information Block type 5 (applicable in Idle Mode and Connected Mode) or System Information Block type 6 (applicable in Connected Mode only), as follows:
 - 2>if in connected mode and System Information Block type 6 is defined and includes PRACH info:
 - 3> compile a list of candidate PRACHs that consists of the PRACH system information(s) listed in SIB 6, in the order of appearance as in SIB 6

2>otherwise:

- 3> compile a list of candidate PRACHs that consists of the PRACH system information(s) listed in SIB 5, in the order of appearance as in SIB 5
- 2> in FDD:
 - 3> if both RACH with 10 ms and 20 ms TTI are <u>included in the list of candidate PRACH(s)</u>indicated in System Information Block type 5 or System Information Block type 6:
 - 4> select the appropriate TTI based on power requirements, as specified in subclause 8.5.18.
 - 4> remove PRACHs system information(s) from the list of candidate PRACHs that have a TTI different from the selected value
- 2> in 1.28 Mcps TDD:
 - 3> if RACH with 5 ms, 10 ms and 20 ms TTI are <u>included in the list of candidate PRACH(s)</u>indicated in System Information Block type 5 or System Information Block Type 6:
 - 4> select the TTI according to 8.5.18.2.
 - 4> remove PRACHs system information(s) from the list of candidate PRACHs that have a TTI different from the selected value
- 2> select a "PRACH system information" randomly from the <u>list of candidate PRACH(s)</u> ones listed in System Information Block type 5 or System Information Block type 6 as follows:

"Index of selected PRACH" = floor (rand * K)

where K is equal to the number of <u>listed-candidate</u> PRACH system informations that carry an RACH with the above selected TTI, "rand" is a random number uniformly distributed in the range 0,...,1, and "floor" refers to rounding down to nearest integer. <u>PRACH system informations carrying RACHs with 10 and 20 ms TTI shall be counted separately.</u> These <u>candidate</u> PRACH system informations shall be indexed from 0 to K-1 in the order of their occurrence in <u>System Information Block type 5 or System Information</u> <u>Block type 6</u>. The random number generator is left to implementation. The scheme shall be implemented such that one of the available PRACH system informations is randomly selected with uniform probability. At start-up of the random number generator in the UE the seed shall be dependent on the IMSI of the UE or time, thereby avoiding that all UEs select the same RACH;

2> in Connected mode:

- 3> select the PRACH according to the following preference:
 - 4> if System Information Block type 6 is defined and PRACH info is included:

- 5> select PRACH from the PRACHs listed in System Information Block type 6.
- 4> if System Information Block type 6 is defined and no PRACH info is included:
 - 5> select PRACH from the PRACHs listed in System Information Block type 5.
- 4> if no System Information Block type 6 is defined:
 - 5> select PRACH from the PRACHs listed in System Information Block type 5.
- 2> reselect the default PRACH system information when a new cell is selected. RACH reselection may also be performed after each transmission of a Transport Block Set on RACH.
- 1> for emergency call, the UE is allowed to select any of the available PRACH system informations.

After selecting a PRACH system information, the RRC in the UE shall configure the MAC and the physical layer for the RACH access according to the parameters include

8.5.19 Secondary CCPCH selection

In UTRAN Connected mode, the UE shall select the Secondary CCPCH according to the following rules:

- 1> in Cell DCH state:
 - 2> select Secondary CCPCH according to subclause 8.6.6.4.
- 1> in Cell FACH state:
 - 2> if SIB 6 is defined and includes one or more SCCPCH that carry a FACH, (the UE shall) compile a list of candidate SCCPCH that consists of these SCCPCH, in the order of appearance in SIB 6
- NOTE 1: An SCCPCH carries a FACH if the size of the "FACH/PCH information" list within the IE "Secondary CCPCH system information" exceeds 1 or if the size of this list equals 1 while IE "Secondary CCPCH system information" does not contain an IE "PICH info"
 - 2> otherwise (the UE shall) compile a list of candidate SCCPCH that consists of the SCCPCH(s) included in SIB 5 that that carry a FACH, in the order of appearance in SIB 5
 - 2> select an SCCPCH from the <u>list of candidate</u> SCCPCHs listed in SIB 5 or SIB 6-based on U-RNTI as follows:

"Index of selected SCCPCH" = U-RNTI mod K,

where K is equal to the number of listed candidate SCCPCHs that carry a FACH (i.e., SCCPCHs carrying PCH only shall not be counted). These SCCPCHs shall be indexed from 0 to K. I in the order of their occurrence in SIB 5 or SIB 6. "Index of selected SCCPCH" identifies the selected SCCPCH.

- 2> if SIB 6 is defined and SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 6.
- 2> if SIB 6 is defined and no SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 2> if no SIB 6 is defined:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.
- 1> in Cell_PCH and URA_PCH states:
 - 2> if SIB 6 is defined and includes one or more SCCPCH that carry a PCH, (the UE shall) compile a list of candidate SCCPCH that consists of these SCCPCH, in the order of appearance in SIB 6
- NOTE 2: An SCCPCH carries a PCH if the IE "Secondary CCPCH system information" contains IE "PICH info"
 - 2> otherwise (the UE shall) compile a list of candidate SCCPCH that consists of the SCCPCH(s) included in SIB 5 that that carry a PCH, in the order of appearance in SIB 5
 - 2> select an SCCPCH from the <u>list of candidate</u> SCCPCHs listed in SIB-5 or SIB-6-based on U-RNTI as follows:

"Index of selected SCCPCH" = U-RNTI mod K,

where K is equal to the number of <u>listed-candidate</u> SCCPCHs that carry a PCH (i.e., SCCPCHs carrying FACH only shall not be counted). These SCCPCHs shall be indexed in the order of their occurrence in system information from 0 to K-1, and "Index of selected SCCPCH" identifies the selected SCCPCH.

- 2> if SIB 6 is defined and SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 6.
- 2> if SIB 6 is defined and no SCCPCH info is included:
 - 3> select SCCPCH from the SCCPCHs listed in SIB 5.

2> if no SIB 6 is defined:

3> select SCCPCH from the SCCPCHs listed in SIB 5.

UE shall set CFN in relation to SFN of current cell according to subclause 8.5.15.

The UE shall support reception of all transport formats on all FACHs multiplexed on the selected S-CCPCH.