TSG-RAN Meeting #15
Jeju-do, Korea, 5 - 8 March 2002

RP-020071

Title: **Agreed CRs (Release '99 and Rel-4 category A) to TS 25.331 (2)**

Source: **TSG-RAN WG2**

Agenda item: **7.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio
R2-020274	agreed	25.331	1250		R99	Measurement Corrections	F	3.9.0	3.10.0
R2-020465	agreed	25.331	1251		Rel-4	Measurement Corrections	A	4.3.0	4.4.0
R2-020466	agreed	25.331	1252	1	R99	Existence of TFCI bits	F	3.9.0	3.10.0
R2-020467	agreed	25.331	1253		Rel-4	Existence of TFCI bits	A	4.3.0	4.4.0
R2-020468	agreed	25.331	1257	1	R99	Corrections of inconsistency between procedural description, tabular and ASN.1	F	3.9.0	3.10.0
R2-020469	agreed	25.331	1258		Rel-4	Corrections of inconsistency between procedural description, tabular and ASN.1	A	4.3.0	4.4.0
R2-020471	agreed	25.331	1259	1	R99	Corrections to Expiration Time Factor and Expiration Time formula for SIB 7 and SIB 14	F	3.9.0	3.10.0
R2-020472	agreed	25.331	1260		Rel-4	Corrections to Expiration Time Factor and Expiration Time formula for SIB 7 and SIB 14	A	4.3.0	4.4.0
R2-020473	agreed	25.331	1261	1	R99	Corrections to Reporting Cell Status	F	3.9.0	3.10.0
R2-020562	agreed	25.331	1262		Rel-4	Corrections to Reporting Cell Status	A	4.3.0	4.4.0
R2-020547	agreed	25.331	1267	2	R99	Correction to inter frequency measurements	F	3.9.0	3.10.0
R2-020548	agreed	25.331	1268		Rel-4	Correction to inter frequency measurements	A	4.3.0	4.4.0
R2-020474	agreed	25.331	1270	1	R99	Actions at reception of system information block type 1	F	3.9.0	3.10.0
R2-020475	agreed	25.331	1271		Rel-4	Actions at reception of system information block type 1	A	4.3.0	4.4.0
R2-020476	agreed	25.331	1272	2	R99	Tx diversity and no diversity in the same active set	F	3.9.0	3.10.0
R2-020477	agreed	25.331	1273		Rel-4	Tx diversity and no diversity in the same active set	A	4.3.0	4.4.0
R2-020478	agreed	25.331	1274	1	R99	Correction to cell update	F	3.9.0	3.10.0
R2-020479	agreed	25.331	1275		Rel-4	Correction to cell update	A	4.3.0	4.4.0
R2-020301	agreed	25.331	1276		R99	Successful and unsuccessful procedures	F	3.9.0	3.10.0
R2-020480	agreed	25.331	1277		Rel-4	Successful and unsuccessful procedures	A	4.3.0	4.4.0

3GPP TSG-RAN2 Meeting #27 ***Tdoc R2-020274***
Orlando, USA, 18th – 22nd February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1250** ⌘**rev** **-** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Measurement Corrections
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	18th Feb. 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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 variable TRIGGERED_1C_EVENT holds the primary CPICH info of non-active cells which have triggered event 1C but it does not contain the information for which active set cell the conditions were fulfilled.
In contradiction to this, the variable M_{InAS} is currently defined as the measurement result of *any* active set cell, which would imply that the UE should evaluate the trigger condition for each active set cell individually.

This contradiction leads to an unstable reporting behaviour when a non-active cell is better than one, but worse than another active set cell. For this non-active cell the criteria for entering and leaving the trigger conditions would be fulfilled simultaneously.

It is proposed to change the definition of M_{InAS} in such a way that only the weakest active set cell is used in the evaluation.

Isolated Impact Analysis:
Corrected functionality is the trigger condition for intra-frequency reporting event 1C. The change would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Summary of change: ⌘

It is clarified that the variable M_{InAS} is the measurement result of the active set cell with the highest pathloss value or the lowest Ec/No or RSCP value, depending on the configured measurement quantity.

The example given in the description of event 1C is corrected to show the behaviour as it is specified in the text.

Consequences if not approved: ⌘

Unpredictable reporting behaviour for intra-frequency reporting event 1C.

Clauses affected: ⌘ 14.1.2.3

Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.3.0, CR 1251
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.

14.1.2.3 Reporting event 1C: A non-active primary CPICH becomes better than an active primary CPICH

When event 1C is configured in the UE, the UE shall:

- if "Measurement quantity" is "pathloss" and Equation 1 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 2 below is fulfilled for one or more primary CPICHs, for each of these primary CPICHs:
  - if the equations have been fulfilled during the time "Time to trigger", and if the primary CPICH that is better is not included in the active set but the other primary CPICH is any of the primary CPICHs included in the active set, and if that primary CPICH is not included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:
    - include that primary CPICH in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT.
- if the value of "Replacement activation threshold" for this event is less than or equal to the current number of cells in the active set or equal to 0 and if any primary CPICHs are stored in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT:
  - if "Reporting interval" for this event is not equal to 0:
    - if the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT is set to FALSE:
      - start a timer for with the value of "Reporting interval" for this event and set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to TRUE.
    - set "sent reports" for that primary CPICH in the variable TRIGGERED_1C_EVENT to 1.
  - send a measurement report with IEs set as below:
    - set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and
    - include in "cell measurement event results" all entries of the "cells recently triggered" in the variable TRIGGERED_1C_EVENT not in the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one;
    - set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2.
  - move all entries from "cells recently triggered" to "cells triggered" in the variable TRIGGERED_1C_EVENT.
- if the timer for the periodical reporting has expired:
  - if any primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT, and not included in the current active set:
    - if "Reporting interval" for this event is not equal to 0, and if "Amount of reporting" is greater than "sent reports" stored for that primary CPICH, in "cells triggered" in the variable TRIGGERED_1C_EVENT:
      - increment the stored counter "sent reports" for all CPICH in "cell triggered" in variable TRIGGERED_1C_EVENT;
      - start a timer with the value of "Reporting interval" for this event;
      - send a measurement report with IEs set as below:
        - set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

- include in "cell measurement event results" all entries of the variable TRIGGERED_1C_EVENT with value of IE "sent report" smaller than value of "Amount of reporting" and that are not part of the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one;
- set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2.

- if "sent reports" in variable TRIGGERED_1C_EVENT is greater than "Amount of reporting" for all entries:
  - set the IE "Periodical Reporting running" in the variable TRIGGERED_1C_EVENT to FALSE and disable the timer for the periodical reporting.

- if "Measurement quantity" is "pathloss" and Equation 3 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 4 below is fulfilled for a primary CPICH:
  - if that primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:
    - remove the entry of that primary CPICH from "cells triggered" in the variable TRIGGERED_1C_EVENT.
    - if no entry in the variable TRIGGERED_1C_EVENT has a value of "sent reports" smaller than "Amount of reporting":
      - stop the reporting interval timer;
      - set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to FALSE.

Equation 1 (Triggering condition for pathloss)

$$M_{New} \leq M_{InAS} - H_{1c}/2,$$

Equation 2 (Triggering condition for all the other measurement quantities)

$$M_{New} \geq M_{InAS} + H_{1c}/2,$$

Equation 3 (Leaving triggering condition for pathloss)

$$M_{New} > M_{InAS} + H_{1c}/2,$$

Equation 4 (Leaving triggering condition for all the other measurement quantities)

$$M_{New} < M_{InAS} - H_{1c}/2,$$

The variables in the formula are defined as follows:

M_{New} is the measurement result of the cell not included in the active set.

~~M_{InAS} is the measurement result of a cell in the active set~~.

For pathloss:

M_{InAS} is the measurement result of the cell in the active set with the highest measurement result

For other measurement quantities:

M_{InAS} is the measurement result of the cell in the active set with the lowest measurement result

H_{1c} is the hysteresis parameter for the event 1c.

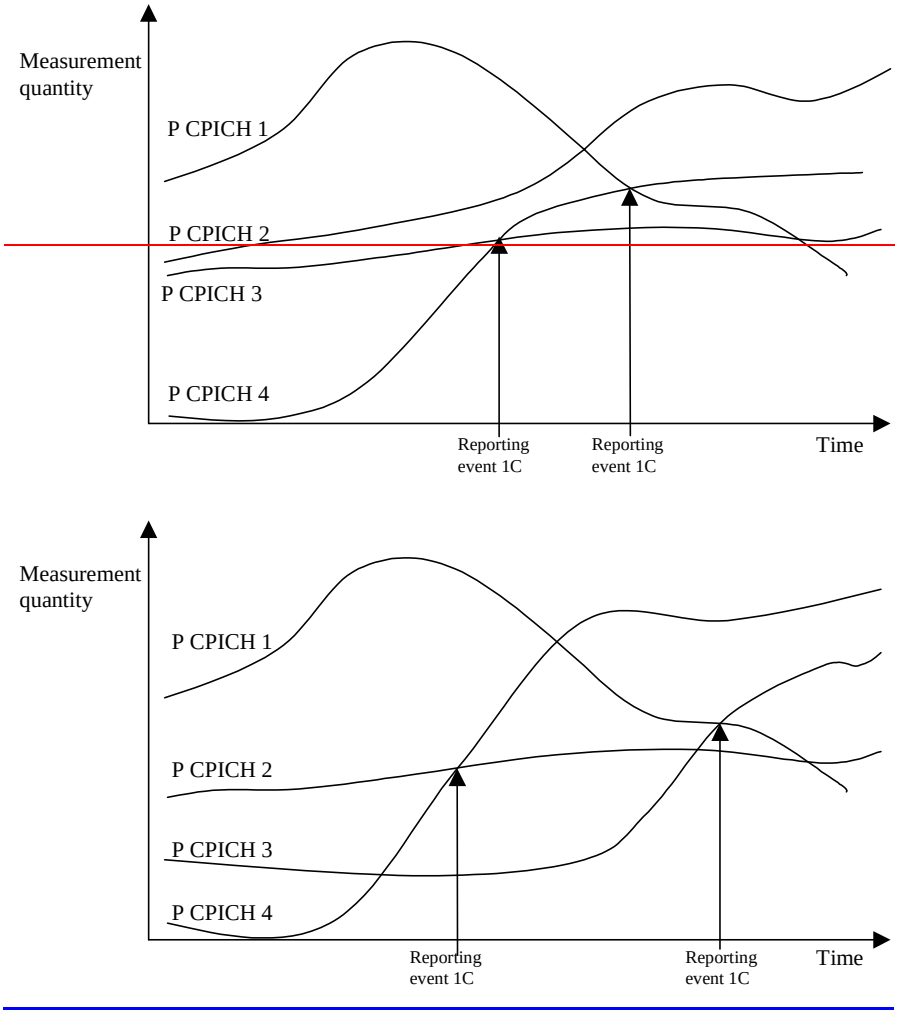

Figure 14.1.2.3-1: A primary CPICH that is not included in the active set becomes better than a primary CPICH that is in the active set

In this example the cells belonging to primary CPICH 1~~,~~ and 2 ~~and 3~~ are ~~supposed to be~~ in the active set, but the cells transmitting primary CPICH 3 and CPICH 4 is not (yet) in the active set.

The first measurement report is sent when primary CPICH 4 becomes better than primary CPICH 2. The "cell measurement event result" of the measurement report contains the information of primary CPICH 4 and CPICH 2.

Assuming that the active set has been updated after the first measurement report (active set is now primary CPICH 1 and primary CPICH 4), the second report is sent when primary CPICH 3 becomes better than primary CPICH 1. The "cell measurement event result" of the second measurement report contains the information of primary CPICH 3 and primary CPICH 1.

3GPP TSG-RAN2 Meeting #27
Orlando, U.S.A, 18-22 February, 2002

Tdoc R2-020480

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1277** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Successful and unsuccessful procedures
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	22 Feb. 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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:	⌘	In section 8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE, the procedure is declared a success if "if V300 is greater than N300" or if "if the IE "wait time" = '0'". In both cases the UE ends up in idle mode. We can only assume that the success was referred to the execution of the RRC CONNECTION REJECT message by the UE, but since we have never defined a RRC connection reject procedure on its own, the successful statement should be modified. Similarly in section 8.1.3.7 Physical channel failure or cell re-selection, and in section 8.1.3.8 Invalid RRC CONNECTION SETUP message, unsupported configuration or invalid configuration, the procedure is declared a success if "if V300 is greater than N300". Also in this case the UE ends up in idle mode. This time we can not see how the procedure can be classified as a success. **Isolated impact Change analysis** This change clarifies the RRC connection establishment procedure. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Summary of change:	⌘	The successful statements in sections 8.1.3.7, 8.1.3.8 and 8.1.3.9 are modified as follows: - consider the RRC connection establishment procedure to be unsuccessful;
Consequences if not approved:	⌘	Conflicting requirements in the specification

Clauses affected:	⌘	8.1.3.7, 8.1.3.8, 8.1.3.9		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1276

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.

[…]

8.1.3.7 Physical channel failure or cell re-selection

- If the UE failed to establish, per subclause 8.5.4, the physical channel(s) indicated in the RRC CONNECTION SETUP message; or
- if the UE performs cell re-selection; or
- if the UE will be in the CELL_FACH state at the conclusion of this procedure; and
- if the received RRC CONNECTION SETUP message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE; or
- if the contents of the variable C_RNTI is empty;
- after having received an RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" equal to the value of the variable INITIAL_UE_IDENTITY; and
- before the RRC CONNECTION SETUP COMPLETE message is delivered to lower layers for transmission:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS;
- check the value of V300, and:
  - if V300 is equal to or smaller than N300:
    - set CFN in relation to SFN of current cell according to subclause 8.5.15;
    - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
    - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - increment counter V300; and
    - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
  - if V300 is greater than N300:
    - enter idle mode;
    - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - consider the RRC establishment procedure to be unsuccessful;
    - the procedure ends.

8.1.3.8 Invalid RRC CONNECTION SETUP message, unsupported configuration or invalid configuration

If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY, but the RRC CONNECTION SETUP message 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:

- clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below;

- if the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY; and
- the RRC CONNECTION SETUP message contained a configuration the UE does not support; and/or
- the variable UNSUPPORTED_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- the variable INVALID_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- if V300 is equal to or smaller than N300:
  - set the variable PROTOCOL_ERROR_INDICATOR to TRUE;
  - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
  - apply the given Access Service Class when accessing the RACH;
  - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - increment counter V300; and
  - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- if V300 is greater than N300:
  - enter idle mode;
  - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - consider the RRC establishment procedure to be unsuccessful;
  - the procedure ends.

8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

When the UE receives an RRC CONNECTION REJECT message on the downlink CCCH, it shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION REJECT message with the value of the variable INITIAL_UE_IDENTITY:

If the values are different, the UE shall ignore the rest of the message;

If the values are identical, the UE shall stop timer T300 and:

- if the IE "wait time" <> '0'; and
- if the IE "frequency info" is present and:
  - if V300 is equal to or smaller than N300:
    - initiate cell selection on the designated UTRA carrier;
    - after having selected and camped on a cell:
      - set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;

- perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
- reset counter V300;
- start timer T300 when the MAC layer indicates success or failure in transmitting the message;
- disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed;

- if a cell selection on the designated carrier fails:
  - wait for the time stated in the IE "wait time";
  - set CFN in relation to SFN of current cell according to subclause 8.5.15;
  - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
  - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;
  - increment counter V300;
  - restart timer T300 when the MAC layer indicates success or failure to transmit the message;

- if V300 is greater than N300:
  - enter idle mode;
  - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - consider the RRC establishment procedure to be unsuccessful;
  - the procedure ends.

- if the IE "inter-RAT info" is present and:
  - if V300 is equal to or smaller than N300:
    - perform cell selection in the designated system;
    - delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
    - if cell selection in the designated system fails:
      - wait at least the time stated in the IE "wait time";
      - set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.
      - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
      - increment counter V300;
      - restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - if V300 is greater than N300:
    - enter idle mode;

- perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
- consider the RRC establishment procedure to be unsuccessful;
- the procedure ends.

- If neither the IEs "frequency info" nor "inter-RAT info" are present and:
  - if V300 is equal to or smaller than N300:
    - wait at least the time stated in the IE "wait time";
    - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
    - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - increment counter V300;
    - restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - if V300 is greater than N300:
    - enter idle mode;
    - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - consider the RRC establishment procedure to be unsuccessful;
    - the procedure ends.
  - if the IE "wait time" = '0':
    - enter idle mode;
    - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - consider the RRC establishment procedure to be unsuccessful;
    - the procedure ends.

[…]

3GPP TSG-RAN2 Meeting #27
Orlando, U.S.A, 18-22 February, 2002

Tdoc R2-020301

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1276** ⌘ **rev** **-** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Successful and unsuccessful procedures
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	18 Feb. 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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:	⌘	In section 8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE, the procedure is declared a success if “if V300 is greater than N300” or if “if the IE "wait time" = '0'”. In both cases the UE ends up in idle mode. We can only assume that the success was referred to the execution of the RRC CONNECTION REJECT message by the UE, but since we have never defined a RRC connection reject procedure on its own, the successful statement should be modified. Similarly in section 8.1.3.7 Physical channel failure or cell re-selection, and in section 8.1.3.8 Invalid RRC CONNECTION SETUP message, unsupported configuration or invalid configuration, the procedure is declared a success if “if V300 is greater than N300”. Also in this case the UE ends up in idle mode. This time we can not see how the procedure can be classified as a success. **Isolated impact Change analysis** This change clarifies the RRC connection establishment procedure. It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.
Summary of change:	⌘	The successful statements in sections 8.1.3.7, 8.1.3.8 and 8.1.3.9 are modified as follows: - consider the RRC connection establishment procedure to be unsuccessful;
Consequences if not approved:	⌘	Conflicting requirements in the specification

Clauses affected:	⌘	8.1.3.7, 8.1.3.8, 8.1.3.9		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.3.0, CR 1277

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.

[…]

8.1.3.7 Physical channel failure or cell re-selection

- If the UE failed to establish, per subclause 8.5.4, the physical channel(s) indicated in the RRC CONNECTION SETUP message; or
- if the UE performs cell re-selection; or
- if the UE will be in the CELL_FACH state at the conclusion of this procedure; and
- if the received RRC CONNECTION SETUP message included the IE "Primary CPICH info" (for FDD) or "Primary CCPCH info" (for TDD), and the UE selected another cell than indicated by this IE; or
- if the contents of the variable C_RNTI is empty;
- after having received an RRC CONNECTION SETUP message with the value of the IE "Initial UE identity" equal to the value of the variable INITIAL_UE_IDENTITY; and
- before the RRC CONNECTION SETUP COMPLETE message is delivered to lower layers for transmission:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS;
- check the value of V300, and:
  - if V300 is equal to or smaller than N300:
    - set CFN in relation to SFN of current cell according to subclause 8.5.15;
    - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
    - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - increment counter V300; and
    - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
  - if V300 is greater than N300:
    - enter idle mode;
    - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - consider the RRC establishment procedure to be unsuccessful;
    - the procedure ends.

8.1.3.8 Invalid RRC CONNECTION SETUP message, unsupported configuration or invalid configuration

If the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY, but the RRC CONNECTION SETUP message 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:

- clear the entry for the RRC CONNECTION SETUP message in the table "Rejected transactions" in the variable TRANSACTIONS and proceed as below;

- if the UE receives an RRC CONNECTION SETUP message which contains an IE "Initial UE identity" with a value which is identical to the value of the variable INITIAL_UE_IDENTITY; and
- the RRC CONNECTION SETUP message contained a configuration the UE does not support; and/or
- the variable UNSUPPORTED_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message; and/or
- the variable INVALID_CONFIGURATION becomes set to TRUE due to the received RRC CONNECTION SETUP message:

the UE shall:

- clear the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS and proceed as below;
- if V300 is equal to or smaller than N300:
  - set the variable PROTOCOL_ERROR_INDICATOR to TRUE;
  - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13; and
  - apply the given Access Service Class when accessing the RACH;
  - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
  - increment counter V300; and
  - restart timer T300 when the MAC layer indicates success or failure in transmitting the message.
- if V300 is greater than N300:
  - enter idle mode;
  - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - consider the RRC establishment procedure to be unsuccessful;
  - the procedure ends.

8.1.3.9 Reception of an RRC CONNECTION REJECT message by the UE

When the UE receives an RRC CONNECTION REJECT message on the downlink CCCH, it shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION REJECT message with the value of the variable INITIAL_UE_IDENTITY:

If the values are different, the UE shall ignore the rest of the message;

If the values are identical, the UE shall stop timer T300 and:

- if the IE "wait time" <> '0'; and
- if the IE "frequency info" is present and:
  - if V300 is equal to or smaller than N300:
    - initiate cell selection on the designated UTRA carrier;
    - after having selected and camped on a cell:
      - set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - set the contents of the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;

- perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
- transmit an RRC CONNECTION REQUEST message on the uplink CCCH;
- reset counter V300;
- start timer T300 when the MAC layer indicates success or failure in transmitting the message;
- disable cell reselection to original carrier until the time stated in the IE "wait time" has elapsed;

- if a cell selection on the designated carrier fails:
  - wait for the time stated in the IE "wait time";
  - set CFN in relation to SFN of current cell according to subclause 8.5.15;
  - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.3;
  - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
  - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH of the original serving cell;
  - increment counter V300;
  - restart timer T300 when the MAC layer indicates success or failure to transmit the message;

- if V300 is greater than N300:
  - enter idle mode;
  - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
  - consider the RRC establishment procedure to be unsuccessful;
  - the procedure ends.

- if the IE "inter-RAT info" is present and:
  - if V300 is equal to or smaller than N300:
    - perform cell selection in the designated system;
    - delay cell reselection to the original system until the time stated in the IE " wait time" has elapsed.
    - if cell selection in the designated system fails:
      - wait at least the time stated in the IE "wait time";
      - set CFN in relation to SFN of current cell according to subclause 8.5.15;
      - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2.
      - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
      - then submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
      - increment counter V300;
      - restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - if V300 is greater than N300:
    - enter idle mode;

- perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
- consider the RRC establishment procedure to be unsuccessful;
- the procedure ends.

- If neither the IEs "frequency info" nor "inter-RAT info" are present and:
  - if V300 is equal to or smaller than N300:
    - wait at least the time stated in the IE "wait time";
    - set the IEs in the RRC CONNECTION REQUEST message according to subclause 8.1.3.2;
    - perform the mapping of the Access Class to an Access Service Class as specified in subclause 8.5.13, and apply the given Access Service Class when accessing the RACH;
    - submit a new RRC CONNECTION REQUEST message to the lower layers for transmission on the uplink CCCH;
    - increment counter V300;
    - restart timer T300 when the MAC layer indicates success or failure to transmit the message;
  - if V300 is greater than N300:
    - enter idle mode;
    - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - consider the RRC establishment procedure to be unsuccessful;
    - the procedure ends.
  - if the IE "wait time" = '0':
    - enter idle mode;
    - perform the actions specified in subclause 8.5.2 when entering idle mode from connected mode;
    - consider the RRC establishment procedure to be unsuccessful;
    - the procedure ends.

[…]

3GPP TSG-RAN WG2 Meeting #27
Orlando, FL, USA, Feb 18-22, 2002

Tdoc R2-020479

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1275** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction to cell update
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	2002-02-05
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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: ⌘

In section 8.3.1.2, trigger of the cell update procedure, it is said
"- if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- if the UE is in CELL_FACH or CELL_PCH state; and
- if the UE performs cell re-selection or the variable C_RNTI is empty:
  - perform cell update using the cause "cell reselection"

According to the reconfiguration procedures, 8.2.2.3, C-RNTI is always removed when UE enters CELL_PCH which makes sence since the C-RNTI is not needed in that state. However, following the text in 8.3.1.2 (above), the UE will trigger an immediate cell update to get a C-RNTI. In other procedures that may cause state transition to CELL_FACH or CELL_PCH states it is only when the target state is CELL_FACH the UE performs a cell update when the C-RNTI is missing.

The test “the variable C_RNTI is empty” in 8.3.1.2 should only be valid for the CELL_FACH state.

Summary of change: ⌘

The test “the variable C_RNTI is empty” is made valid for only the CELL_FACH state.

Impact analysis:

Impacted functionality: Transition to the CELL_PCH state.

Correction: Clarification that the UE shall not perform cell update due to missing C-RNTI at transmition to the CELL_PCH state.

Correction to a function where the specification contained contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If the UE does not implement the change, but the UTRAN does, UE may perform

		a repetitive cell update at transition to CELL_PCH. There is no usable scenario where UTRAN assumes the corrected UE behaviour (cyclic cell update).
Consequences if not approved:	⌘	Unclear specification. Risk of UEs performing cyclic cell update due to wrong interpretation of the specification.

Clauses affected:	⌘	8.3.1.2		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1274r1
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.

8.3.1.2 Initiation

A UE shall initiate the cell update procedure in the following cases:

- Uplink data transmission:
  - if the UE is in URA_PCH or CELL_PCH state; and
  - if the UE has uplink RLC data PDU or uplink RLC control PDU on RB1 or upwards to transmit:
    - perform cell update using the cause "uplink data transmission".
- Paging response:
  - if the criteria for performing cell update with the cause specified above in the current subclause is not met; and
  - if the UE in URA_PCH or CELL_PCH state, receives a PAGING TYPE 1 message fulfilling the conditions for initiating a cell update procedure specified in subclause 8.1.2.3:
    - perform cell update using the cause "paging response".
- Radio link failure:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE is in CELL_DCH state; and
  - if the criteria for radio link failure is met as specified in subclause 8.5.6:
    - perform cell update using the cause "radio link failure".
- Re-entering service area:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE is in CELL_FACH or CELL_PCH state; and
  - if the UE has been out of service area and re-enters service area before T307 or T317 expires:
    - perform cell update using the cause "re-entering service area".
- RLC unrecoverable error:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE detects RLC unrecoverable error [16] in an AM RLC entity:
    - perform cell update using the cause "RLC unrecoverable error".
- Cell reselection:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
    - if the UE is in CELL_FACH or CELL_PCH state and the UE performs cell re-selection; or
    - if the UE is in CELL_FACH state and the variable C_RNTI is empty:

~~- if the UE is in CELL_FACH or CELL_PCH state; and~~

~~- if the UE performs cell re-selection or the variable C_RNTI is empty:~~

- perform cell update using the cause "cell reselection". [Hans: Style has changed to B4]

- Periodical cell update:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE is in CELL_FACH or CELL_PCH state; and
  - if the timer T305 expires; and
  - if the criteria for "in service area" as specified in subclause 8.5.5.2 is fulfilled; and
  - if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - perform cell update using the cause "periodical cell update".

A UE in URA_PCH state shall initiate the URA update procedure in the following cases:

- URA reselection:
  - if the UE detects that the current URA assigned to the UE, stored in the variable URA_IDENTITY, is not present in the list of URA identities in system information block type 2; or
  - if the list of URA identities in system information block type 2 is empty; or
  - if the system information block type 2 can not be found:
    - perform URA update using the cause "change of URA".
- Periodic URA update:
  - if the criteria for performing URA update with the causes as specified above in the current subclause are not met; and
  - if the timer T305 expires while the UE is in the service area; and
  - if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - perform URA update using the cause "periodic URA update".

When initiating the URA update or cell update procedure, the UE shall:

- stop timer T305;
- if the UE is in CELL_DCH state:
  - in the variable RB_TIMER_INDICATOR, set the IE "T314 expired" and the IE "T315 expired" to FALSE;
  - if the stored values of the timer T314 and timer T315 are both equal to zero:
    - release all its radio resources;

- indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;

- clear the variable ESTABLISHED_SIGNALLING_CONNECTIONS;

- clear the variable ESTABLISHED_RABS;

- enter idle mode;

- perform other actions when entering idle mode from connected mode as specified in subclause 8.5.2;

- and the procedure ends.

- if the stored value of the timer T314 is equal to zero:

  - release all radio bearers, associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT314";

  - in the variable RB_TIMER_INDICATOR set the IE "T314 expired" to TRUE.

- if the stored value of the timer T315 is equal to zero:

  - release all radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT315";

  - in the variable RB_TIMER_INDICATOR set the IE "T315 expired" to TRUE.

- if the stored value of the timer T314 is greater than zero:

  - if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT314":

    - start timer T314.

  - if there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT314" or "useT315":

    - start timer T314.

- if the stored value of the timer T315 is greater than zero:

  - if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT315":

    - start timer T315.

- for the released radio bearer(s):

  - delete the information about the radio bearer from the variable ESTABLISHED_RABS;

  - when all radio bearers belonging to the same radio access bearer have been released:

    - indicate local end release of the radio access bearer to upper layers using the CN domain identity together with the RAB identity stored in the variable ESTABLISHED_RABS;

    - delete all information about the radio access bearer from the variable ESTABLISHED_RABS.

    - select a suitable UTRA cell according to [4];
    - set the variable ORDERED_RECONFIGURATION to FALSE.
- set the variables PROTOCOL_ERROR_INDICATOR, FAILURE_INDICATOR, UNSUPPORTED_CONFIGURATION and INVALID_CONFIGURATION to FALSE;
- set the variable CELL_UPDATE_STARTED to TRUE;
- move to CELL_FACH state, if not already in that state;
- if the UE performs cell re-selection:
    - clear the variable C_RNTI; and
    - stop using that C_RNTI just cleared from the variable C_RNTI in MAC.
- set CFN in relation to SFN of current cell according to subclause 8.5.15;
- in case of a cell update procedure:
    - set the contents of the CELL UPDATE message according to subclause 8.3.1.3;
    - submit the CELL UPDATE message for transmission on the uplink CCCH.
- in case of a URA update procedure:
    - set the contents of the URA UPDATE message according to subclause 8.3.1.3;
    - submit the URA UPDATE message for transmission on the uplink CCCH.
- set counter V302 to 1;
- start timer T302 when the MAC layer indicates success or failure in transmitting the message.

3GPP TSG-RAN WG2 Meeting #27
Orlando, FL, USA, Feb 18-22, 2002

Tdoc R2-020478

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1274** ⌘ **rev** **r1** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction to cell update
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	2002-02-05
Category:	⌘	**F**
Release:	⌘	R99

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.

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: ⌘

In section 8.3.1.2, trigger of the cell update procedure, it is said
"- if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
- if the UE is in CELL_FACH or CELL_PCH state; and
- if the UE performs cell re-selection or the variable C_RNTI is empty:
  - perform cell update using the cause "cell reselection"

According to the reconfiguration procedures, 8.2.2.3, C-RNTI is always removed when UE enters CELL_PCH which makes sence since the C-RNTI is not needed in that state. However, following the text in 8.3.1.2 (above), the UE will trigger an immediate cell update to get a C-RNTI. In other procedures that may cause state transition to CELL_FACH or CELL_PCH states it is only when the target state is CELL_FACH the UE performs a cell update when the C-RNTI is missing.

The test “the variable C_RNTI is empty” in 8.3.1.2 should only be valid for the CELL_FACH state.

Summary of change: ⌘

The test “the variable C_RNTI is empty” is made valid for only the CELL_FACH state.

Impact analysis:

Impacted functionality: Transition to the CELL_PCH state.

Correction: Clarification that the UE shall not perform cell update due to missing C-RNTI at transmition to the CELL_PCH state.

Correction to a function where the specification contained contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If the UE does not implement the change, but the UTRAN does, UE may perform

		a repetitive cell update at transition to CELL_PCH. There is no usable scenario where UTRAN assumes the corrected UE behaviour (cyclic cell update).
Consequences if not approved:	⌘	Unclear specification. Risk of UEs performing cyclic cell update due to wrong interpretation of the specification.

Clauses affected:	⌘	8.3.1.2		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.3.0, CR 1275
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.

8.3.1.2 Initiation

A UE shall initiate the cell update procedure in the following cases:

- Uplink data transmission:
  - if the UE is in URA_PCH or CELL_PCH state; and
  - if the UE has uplink RLC data PDU or uplink RLC control PDU on RB1 or upwards to transmit:
    - perform cell update using the cause "uplink data transmission".
- Paging response:
  - if the criteria for performing cell update with the cause specified above in the current subclause is not met; and
  - if the UE in URA_PCH or CELL_PCH state, receives a PAGING TYPE 1 message fulfilling the conditions for initiating a cell update procedure specified in subclause 8.1.2.3:
    - perform cell update using the cause "paging response".
- Radio link failure:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE is in CELL_DCH state; and
  - if the criteria for radio link failure is met as specified in subclause 8.5.6:
    - perform cell update using the cause "radio link failure".
- Re-entering service area:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE is in CELL_FACH or CELL_PCH state; and
  - if the UE has been out of service area and re-enters service area before T307 or T317 expires:
    - perform cell update using the cause "re-entering service area".
- RLC unrecoverable error:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE detects RLC unrecoverable error [16] in an AM RLC entity:
    - perform cell update using the cause "RLC unrecoverable error".
- Cell reselection:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
    - if the UE is in CELL_FACH or CELL_PCH state and the UE performs cell re-selection; or
    - if the UE is in CELL_FACH state and the variable C_RNTI is empty:

~~- if the UE is in CELL_FACH or CELL_PCH state; and~~

~~- if the UE performs cell re-selection or the variable C_RNTI is empty:~~

- perform cell update using the cause "cell reselection". [Hans: Style has changed to B4]

- Periodical cell update:
  - if none of the criteria for performing cell update with the causes specified above in the current subclause is met; and
  - if the UE is in CELL_FACH or CELL_PCH state; and
  - if the timer T305 expires; and
  - if the criteria for "in service area" as specified in subclause 8.5.5.2 is fulfilled; and
  - if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - perform cell update using the cause "periodical cell update".

A UE in URA_PCH state shall initiate the URA update procedure in the following cases:

- URA reselection:
  - if the UE detects that the current URA assigned to the UE, stored in the variable URA_IDENTITY, is not present in the list of URA identities in system information block type 2; or
  - if the list of URA identities in system information block type 2 is empty; or
  - if the system information block type 2 can not be found:
    - perform URA update using the cause "change of URA".
- Periodic URA update:
  - if the criteria for performing URA update with the causes as specified above in the current subclause are not met; and
  - if the timer T305 expires while the UE is in the service area; and
  - if periodic updating has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity":
    - perform URA update using the cause "periodic URA update".

When initiating the URA update or cell update procedure, the UE shall:

- stop timer T305;
- if the UE is in CELL_DCH state:
  - in the variable RB_TIMER_INDICATOR, set the IE "T314 expired" and the IE "T315 expired" to FALSE;
  - if the stored values of the timer T314 and timer T315 are both equal to zero:
    - release all its radio resources;

- indicate release (abort) of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;

- clear the variable ESTABLISHED_SIGNALLING_CONNECTIONS;

- clear the variable ESTABLISHED_RABS;

- enter idle mode;

- perform other actions when entering idle mode from connected mode as specified in subclause 8.5.2;

- and the procedure ends.

- if the stored value of the timer T314 is equal to zero:

  - release all radio bearers, associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT314";

  - in the variable RB_TIMER_INDICATOR set the IE "T314 expired" to TRUE.

- if the stored value of the timer T315 is equal to zero:

  - release all radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT315";

  - in the variable RB_TIMER_INDICATOR set the IE "T315 expired" to TRUE.

- if the stored value of the timer T314 is greater than zero:

  - if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT314":

    - start timer T314.

  - if there are no radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT314" or "useT315":

    - start timer T314.

- if the stored value of the timer T315 is greater than zero:

  - if there are radio bearers associated with any radio access bearers for which in the variable ESTABLISHED_RABS the value of the IE "Re-establishment timer" is set to "useT315":

    - start timer T315.

- for the released radio bearer(s):

  - delete the information about the radio bearer from the variable ESTABLISHED_RABS;

  - when all radio bearers belonging to the same radio access bearer have been released:

    - indicate local end release of the radio access bearer to upper layers using the CN domain identity together with the RAB identity stored in the variable ESTABLISHED_RABS;

    - delete all information about the radio access bearer from the variable ESTABLISHED_RABS.

    - select a suitable UTRA cell according to [4];
    - set the variable ORDERED_RECONFIGURATION to FALSE.
- set the variables PROTOCOL_ERROR_INDICATOR, FAILURE_INDICATOR, UNSUPPORTED_CONFIGURATION and INVALID_CONFIGURATION to FALSE;
- set the variable CELL_UPDATE_STARTED to TRUE;
- move to CELL_FACH state, if not already in that state;
- if the UE performs cell re-selection:
    - clear the variable C_RNTI; and
    - stop using that C_RNTI just cleared from the variable C_RNTI in MAC.
- set CFN in relation to SFN of current cell according to subclause 8.5.15;
- in case of a cell update procedure:
    - set the contents of the CELL UPDATE message according to subclause 8.3.1.3;
    - submit the CELL UPDATE message for transmission on the uplink CCCH.
- in case of a URA update procedure:
    - set the contents of the URA UPDATE message according to subclause 8.3.1.3;
    - submit the URA UPDATE message for transmission on the uplink CCCH.
- set counter V302 to 1;
- start timer T302 when the MAC layer indicates success or failure in transmitting the message.

3GPP TSG-RAN2 Meeting #27
Orlando, U.S.A, 18-22 February, 2002

Tdoc R2-020477

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1273** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Tx diversity and no diversity in the same active set
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	22 Feb. 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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 current text is not aligned with TS 25.211.

Summary of change: ⌘

1. The UE may apply the same Tx diversity mode to all the radio links in the active set.

~~2. It is clarified that the configuration is invalid if the values in slots of the IE "Closed loop timing adjustment mode" of two radio links in the active set are different.~~

3. If the IE “Tx diversity mode” is set to “none”, the UE shall configure the Layer 1 not to use Tx diversity.

4. If the IE “Tx diversity mode” is not included, the UE shall continue to use the already configured Tx diversity mode.

Isolated Impact Change Analysis.

This change affects the Tx Diversity procedures.
It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved: ⌘ Misalignment between RAN1 and RAN2 specifications

Clauses affected: ⌘ 8.6.6.24, 10.3.6.21

Other specs affected: ⌘
☐ Other core specifications ⌘ 25.331 v3.9.0, CR 1272r2
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘ Changes with respect to the previous version are highlighted

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.

[…]

8.6.6.24 Tx Diversity Mode

If the IE "Tx Diversity Mode" is included ~~the UE shall~~:

- if the value of the IE "Tx Diversity Mode" is closed loop mode1, closed loop mode 2 or STTD:
  - the UE shall configure the Layer 1 to use the Tx diversity mode indicated in the IE "Tx Diversity Mode" ~~only~~ for the radio links for which the IE "Closed loop timing adjustment mode" is included, ignoring the actual value of IE "Closed loop timing adjustment mode". The UE may apply the Tx diversity mode indicated in IE "Tx Diversity Mode" to all radio links in the active set, as specified in [26]; [Note: Indentation changed to B2]

~~- if the value of the IE "Tx Diversity Mode" is STTD:~~

~~- ignore the value of the IE "Closed loop timing adjustment mode", for all the radio links for which the IE "Closed loop timing adjustment mode" is included.~~

~~- if the value of the IE "Tx Diversity Mode" is closed loop mode1 or closed loop mode2:~~

~~- apply the value of the IE "Closed loop timing adjustment mode", for all the radio links for which the IE "Closed loop timing adjustment mode" is included.~~

- if the value of the IE "Tx Diversity Mode" is "none"
  - the UE shall configure the Layer 1 not to use Tx diversity:

If the IE "Tx Diversity Mode" is not included, the UE shall continue to use the already configured Tx diversity mode. In case no Tx diversity mode has been configured, UE shall not apply Tx diversity

[…]

10.3.6.21 Downlink DPCH info for each RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *mode*	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>DPCH frame offset	MP		Integer(0..38144 by step of 256)	Offset (in number of chips) between the beginning of the P-CCPCH frame and the beginning of the DPCH frame This is called $\tau_{DPCH,n}$ in [26]
>>Secondary CPICH info	OP		Secondary CPICH info 10.3.6.73	
>>DL channelisation code	MP	1 to <maxDPCH-DLchan>		For the purpose of physical channel mapping [27] the DPCHs are numbered, starting from DPCH number 1, according to the order that they are contained in this IE.
>>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512-AndCodenumber with "code number" in ASN.1
>>>Code number	MP		Integer(0..Spre	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			ading factor - 1)	
>>>Scrambling code change	CH-*SF/2*		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>TPC combination index	MP		TPC combination index 10.3.6.85	
>>SSDT Cell Identity	OP		SSDT Cell Identity 10.3.6.76	
>>Closed loop timing adjustment mode	CH-*TxDiversity Mode*		Integer(1, 2)	It is present if Tx Diversity is used in the radio link.~~current TX Diversity Mode in UE is "closed loop mode 1" or "closed loop mode 2". Value in slots~~
>TDD				
>>DL CCTrCh List	MP	1..<maxCCTrCH>		
>>>TFCS ID	MD		Integer(1..8)	Identity of this CCTrCh. Default value is 1
>>>Time info	MP		Time Info 10.3.6.83	
>>>Common timeslot info	MD		Common Timeslot Info 10.3.6.10	Default is the current Common timeslot info
>>>Downlink DPCH timeslots and codes	MD		Downlink Timeslots and Codes 10.3.6.32	Default is to use the old timeslots and codes.
>>>UL CCTrCH TPC List	MD	0..<maxCCTrCH>		UL CCTrCH identities for TPC commands associated with this DL CCTrCH. Default is previous list or all defined UL CCTrCHs
>>>>UL TPC TFCS Identity	MP		Transport Format Combination Set Identity 10.3.5.21	

Condition	Explanation
SF/2	The information element is mandatory present if the UE has an active compressed mode pattern sequence, which is using compressed mode method "SF/2". Otherwise the IE is not needed.
TxDiversity Mode	This IE is mandatory present if ~~current~~ any TX Diversity Mode~~ in UE is~~ is used in the radio link, i.e. if STTD, "closed loop mode 1" or "closed loop mode 2" is used on the radio link. Otherwise the IE is not needed.

[…]

3GPP TSG-RAN2 Meeting #27
Orlando, U.S.A, 18-22 February, 2002

Tdoc R2-020476

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1272** ⌘ **rev** **r2** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Tx diversity and no diversity in the same active set
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	18 Feb. 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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 current text is not aligned with TS 25.211.

Summary of change: ⌘

1. The UE may apply the same Tx diversity mode to all the radio links in the active set.

~~2. It is clarified that the configuration is invalid if the values in slots of the IE "Closed loop timing adjustment mode" of two radio links in the active set are different.~~

3. If the IE “Tx diversity mode” is set to “none”, the UE shall configure the Layer 1 not to use Tx diversity.

4. If the IE “Tx diversity mode” is not included, the UE shall continue to use the already configured Tx diversity mode.

Isolated Impact Change Analysis.

This change affects the Tx Diversity procedures.
It would not affect implementations behaving like indicated in the CR, it would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved: ⌘ Misalignment between RAN1 and RAN2 specifications

Clauses affected: ⌘ 8.6.6.24, 10.3.6.21

Other specs affected: ⌘
☐ Other core specifications ⌘ 25.331 v4.3.0, CR 1273
☐ Test specifications
☐ O&M Specifications

Other comments: ⌘ Changes with respect to the previous version are highlighted

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.

[…]

8.6.6.24 Tx Diversity Mode

If the IE "Tx Diversity Mode" is included ~~the UE shall~~:

- if the value of the IE "Tx Diversity Mode" is closed loop mode1, closed loop mode 2 or STTD:
  - the UE shall configure the Layer 1 to use the Tx diversity mode indicated in the IE "Tx Diversity Mode" ~~only~~ for the radio links for which the IE "Closed loop timing adjustment mode" is included, ignoring the actual value of IE "Closed loop timing adjustment mode". The UE may apply the Tx diversity mode indicated in IE "Tx Diversity Mode" to all radio links in the active set, as specified in [26]; [Note: Indentation changed to B2]

~~- if the value of the IE "Tx Diversity Mode" is STTD:~~

~~- ignore the value of the IE "Closed loop timing adjustment mode", for all the radio links for which the IE "Closed loop timing adjustment mode" is included.~~

~~- if the value of the IE "Tx Diversity Mode" is closed loop mode1 or closed loop mode2:~~

~~- apply the value of the IE "Closed loop timing adjustment mode", for all the radio links for which the IE "Closed loop timing adjustment mode" is included.~~

- if the value of the IE "Tx Diversity Mode" is "none"
  - the UE shall configure the Layer 1 not to use Tx diversity:

If the IE "Tx Diversity Mode" is not included, the UE shall continue to use the already configured Tx diversity mode. In case no Tx diversity mode has been configured, UE shall not apply Tx diversity

[…]

10.3.6.21 Downlink DPCH info for each RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *mode*	MP			
>FDD				
>>Primary CPICH usage for channel estimation	MP		Primary CPICH usage for channel estimation 10.3.6.62	
>>DPCH frame offset	MP		Integer(0..38144 by step of 256)	Offset (in number of chips) between the beginning of the P-CCPCH frame and the beginning of the DPCH frame This is called $\tau_{DPCH,n}$ in [26]
>>Secondary CPICH info	OP		Secondary CPICH info 10.3.6.73	
>>DL channelisation code	MP	1 to <maxDPCH-DLchan>		For the purpose of physical channel mapping [27] the DPCHs are numbered, starting from DPCH number 1, according to the order that they are contained in this IE.
>>>Secondary scrambling code	MD		Secondary scrambling code 10.3.6.74	Default is the same scrambling code as for the Primary CPICH
>>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512-AndCodenumber with "code number" in ASN.1
>>>Code number	MP		Integer(0..Spre	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			ading factor - 1)	
>>>Scrambling code change	CH-*SF/2*		Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.
>>TPC combination index	MP		TPC combination index 10.3.6.85	
>>SSDT Cell Identity	OP		SSDT Cell Identity 10.3.6.76	
>>Closed loop timing adjustment mode	CH-*TxDiversity Mode*		Integer(1, 2)	It is present if Tx Diversity is used in the radio link.~~current TX Diversity Mode in UE is "closed loop mode 1" or "closed loop mode 2". Value in slots~~
>TDD				
>>DL CCTrCh List	MP	1..<maxCCTrCH>		
>>>TFCS ID	MD		Integer(1..8)	Identity of this CCTrCh. Default value is 1
>>>Time info	MP		Time Info 10.3.6.83	
>>>Common timeslot info	MD		Common Timeslot Info 10.3.6.10	Default is the current Common timeslot info
>>>Downlink DPCH timeslots and codes	MD		Downlink Timeslots and Codes 10.3.6.32	Default is to use the old timeslots and codes.
>>>UL CCTrCH TPC List	MD	0..<maxCCTrCH>		UL CCTrCH identities for TPC commands associated with this DL CCTrCH. Default is previous list or all defined UL CCTrCHs
>>>>UL TPC TFCS Identity	MP		Transport Format Combination Set Identity 10.3.5.21	

Condition	Explanation
SF/2	The information element is mandatory present if the UE has an active compressed mode pattern sequence, which is using compressed mode method "SF/2". Otherwise the IE is not needed.
TxDiversity Mode	This IE is mandatory present if ~~current~~ any TX Diversity Mode~~ in UE is~~ is used in the radio link, i.e. if STTD, "closed loop mode 1" or "closed loop mode 2" is used on the radio link. Otherwise the IE is not needed.

[…]

3GPP TSG-RAN WG2 Meeting #27
Orlando, FL, USA, Feb 18-22, 2002

Tdoc R2-020475

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1271** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Actions at reception of system information block type 1
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	2002-02-22
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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: ⌘

1. In the CR1081r1 it was introduced that the UE shall read SIB1 also in connected mode. 8.1.1.6.1 gives then now that both in idle and connected mode then the UE shall

   - store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS.

   However, the intention is that these timers and constants should be those in the SIB1 of the cell where the RRC connection was established, or sent from SRNC to UE in the UTRAN MOBILITY INFORMATION message. These timers shall not be changed during the RRC connection due to that the SIB1 is different in different cells. If the SRNC would like to change these values during an RRC connection then the UTRAN MOBILITY INFORMATION message should be used.

   In Section 8.3.3.3 for UTRAN MOBILITY INFORMATION message there is a correct statement how the UE should handle the values received. This text is somewhat in conflict with the text in 8.1.1.6.1.

2. During an RRC connection establishment, the UE may perform cell reselection. Since the IE "UE Timers and constants in connected mode" in SIB 1 contains different values in different cells and may also change within a cell, the following need clarification:

   a) Whether the UE obeys the values applicable for the RRC connection establishment procedure (e.g. T300, N300) currently sent in the serving cell or keeps the values read in the cell where it originally initiated to procedure.

   b) Exactly at which point the UE starts disregarding new values in SIB1 – which should be the point when the UE enters connected mode. Therefore statements need to be added to say when the UE enters UTRA RRC connected mode, for the RRC connection establishment and inter-RAT

handover to UTRAN procedure. Moreover, in the Inter-RAT handover to UTRAN procedure, it is not explicitely stated which RRC state the UE shall enter. Based on other received information elements (such as dedicated physical channels) it sould be obvious that the state is CELL_DCH.

3. The use of the CN domain specific DRX cycle length coefficient whilst in connected mode, and the handling of this IE if received in a UTRAN MOBILITY INFO message is not clear.

Summary of change: ⌘

Correction 1

In the system information procedure it is stated that the timers and constants in SIB 1 shall only be stored if the UE has not yet entered UTRA RRC connected mode.

Impact analysis:

Impacted functionality: Reception of system information block type 1 in connected mode.

Correction: How the timers and constants included in the system information block type 1 is handled in connected mode is defined according to the common understanding.

Correction to a function where the specification was ambigious. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If the UE is not implemented according to the correction, but UTRAN is, and vice versa, the UE may use different timers and constants than assumed by UTRAN. In most cases the consequences are minor. However, for a few timers, namely T307, T314, T315 and T317, the UE may release radio bearers and/or transit to idle mode at a different point than expected by UTRAN. This may cause that the UE and/or the service is unavailable for some time.

Correction 2

In the RRC connection establishment procedure, it is stated that the UE enters UTRA RRC connected mode at reception of RRC CONNECTION SETUP (except for the failure cases).

In the Inter-RAT handover to UTRAN procedure, it is stated that the UE enters UTRA RRC connected mode at the reception of HANDOVER TO UTRAN COMMAND. It is also said the UE enters CELL_DCH state.

Impact analysis:

Impacted functionality: Inter-RAT handover to UTRAN.

Correction: In the Inter-RAT handover to UTRAN procedure it is stated that the UE shall enter CELL_DCH state, which is according to the current understanding.

Correction to a function where the specification was missing a rule. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If the UE does not implement the change, but UTRAN does, the UE might go to e.g. CELL_FACH state while the network assumes CELL_DCH state, and the RRC connection will be lost. A similar behaviour might occur in the opposite

		situation. Correction 3 It is clarified that value of the IE 'CN domain specific DRX cycle length coefficient' that is read from SIB1 whilst in idle mode is stored for use when in connected mode. Whilst in connected mode if the IE 'CN domain specific DRX cycle length coefficient' is received in a UTRAN MOBILITY INFO message then this value overwrites the value that was read from SIB1 and stored whilst the UE was in idle mode.
Consequences if not approved:	⌘	Unclear specification. Risk of interoperability problems (see impact analysis above).

Clauses affected:	⌘	8.1.1.6.1, 8.1.3.6, 8.3.3.3, 8.3.6.3, 10.3.3.43		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1270r1
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.

8.1.1.6.1 System Information Block type 1

The UE should store all relevant IEs included in this system information block if the "PLMN Type" in the variable SELECTED_PLMN has the value "GSM-MAP" and the IE "PLMN type" in the Master Information Block has the value "GSM-MAP" or "GSM-MAP and ANSI-41". The UE shall also:

- check that the cell, according to information included in IE "CN common GSM-MAP NAS system information", is suitable [4];
- if in connected mode:
  - not forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers.
- if in idle mode:
  - forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers.
- for the IE "CN domain system information list":
  - for each IE "CN domain system information" that is present:
    - check that the cell, according to information included in IE "CN domain specific NAS system information", is suitable [4];
    - if in connected mode:
      - not forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers.
    - if in idle mode:
      - forward the content of the IE "CN domain specific NAS system information" and the IE "CN domain identity" to upper layers.
      - use the IE "CN domain specific DRX cycle length coefficient" to calculate frame number for the Paging Occasions as specified in [4]. Hans: indent changed to B4]
      - store the value of the IE "CN domain specific DRX cycle length coefficient" for use in connected mode.
  - if an IE "CN domain system information" is not present for a particular CN domain:
    - indicate to upper layers that no CN system information is available for that CN domain.

~~- use the values in the IE "UE Timers and constants in idle mode" for the relevant timers and constants;~~

- if the UE has not yet entered UTRA RRC connected mode:
  - store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS. [Note to Hans: changed indentation to B2]
- use the values stored in the variable TIMERS_AND_CONSTANTS for the relevant timers and constants;

8.1.3.6 Reception of an RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the variable INITIAL_UE_IDENTITY.

If the values are different, the UE shall:

- ignore the rest of the message.

If the values are identical, the UE shall:

- stop timer T300, and act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - if the UE will be in the CELL_FACH state at the conclusion of this procedure:
    - if the IE "Frequency info" is included:
      - select a suitable UTRA cell according to [4] on that frequency;
    - select PRACH according to subclause 8.5.17;
    - select Secondary CCPCH according to subclause 8.5.19;
    - ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- perform the physical layer synchronization procedure as specified in [29];
- enter UTRA RRC connected mode, in a state according to subclause 8.6.3.3;
- submit an RRC CONNECTION SETUP COMPLETE message to the lower layers on the uplink DCCH after successful state transition per subclause 8.6.3.3, with the contents set as specified below:
  - set the IE "RRC transaction identifier" to:
    - the value of "RRC transaction identifier" in the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS; and
    - clear that entry.
  - if the USIM is present:
    - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message with the corresponding START value that is stored in the USIM [50]; and then
    - set the START value stored in the USIM [50] for any CN domain to the value "THRESHOLD" of the variable START_THRESHOLD.
  - if the USIM is not present:
    - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message to zero;
    - set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the default value [40].
  - retrieve its UTRA UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
  - include this in IE "UE radio access capability" and IE "UE radio access capability extension", provided this IE is included in variable UE_CAPABILITY_REQUESTED;
  - retrieve its inter-RAT-specific UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
  - include this in IE "UE system specific capability".

When the RRC CONNECTION SETUP COMPLETE message has been submitted to lower layers for transmission the UE shall:

- if the UE has entered CELL_FACH state:
  - start timer T305 using its initial value if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1.
- store the contents of the variable UE_CAPABILITY_REQUESTED in the variable UE_CAPABILITY_TRANSFERRED;
- initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4;
- consider the procedure to be successful;

And the procedure ends.

8.3.3.3 Reception of UTRAN MOBILITY INFORMATION message by the UE

When the UE receives a UTRAN MOBILITY INFORMATION message, it shall:

- act on received information elements as specified in subclause 8.6;
- if the IE "UE Timers and constants in connected mode" is present:
  - store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS, replacing any previously stored value for each timer and constant; and
  - for each updated timer value:
    - start using the new value next time the timer is started;
  - for each updated constant value:
    - start using the new value directly;
- if the IE "CN domain specific DRX cycle length coefficient" is present:
  - store the value of the IE "CN domain specific DRX cycle length coefficient" for that CN domain, replacing any previously stored value; and
  - use the value to determine the connected mode paging occasions according to [4].
- set the IE "RRC transaction identifier" in the UTRAN MOBILITY INFORMATION CONFIRM message to the value of "RRC transaction identifier" in the entry for the UTRAN MOBILITY INFORMATION message in the table "Accepted transactions" in the variable TRANSACTIONS; and
- clear that entry;
- if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":
  - include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
- if the UTRAN MOBILITY INFORMATION message contained the IE "Integrity protection mode info" with the IE "Integrity protection mode command" set to "Modify":
  - include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.
- if the variable PDCP_SN_INFO is non-empty:
  - include the IE "RB with PDCP information list" in the UTRAN MOBILITY INFORMATION CONFIRM message and set it to the value of the variable PDCP_SN_INFO.
- if the received UTRAN MOBILITY INFORMATION message included the IE "Downlink counter synchronisation info":
  - calculate the START value according to subclause 8.5.9;
  - include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in the UTRAN MOBILITY INFORMATION CONFIRM message.

- transmit a UTRAN MOBILITY INFORMATION CONFIRM message on the uplink DCCH using AM RLC;
- if the IE "Integrity protection mode info" was present in the UTRAN MOBILITY INFORMATION message:
  - start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted UTRAN MOBILITY INFORMATION CONFIRM message.
- if the variable PDCP_SN_INFO is empty; and
  - if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":
    - when RLC has confirmed the successful transmission of the UTRAN MOBILITY INFORMATION CONFIRM message, perform the actions below.
  - if the UTRAN MOBILITY INFORMATION message did not contain the IE "Ciphering mode info":
    - when RLC has been requested to transmit the UTRAN MOBILITY INFORMATION CONFIRM message, perform the actions below.
- if the variable PDCP_SN_INFO is non-empty:
  - when RLC has confirmed the successful transmission of the UTRAN MOBILITY INFORMATION CONFIRM message:
    - for each radio bearer in the variable PDCP_SN_INFO:
      - if the IE "RB started" in the variable ESTABLISHED_RABS is set to "started":
        - configure the RLC entity for that radio bearer to "continue".
    - clear the variable PDCP_SN_INFO.
- if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":
  - resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
  - set the IE "Reconfiguration" in the variable CIPHERING_STATUS to FALSE; and
  - clear the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
- if the UTRAN MOBILITY INFORMATION message contained the IE "Integrity protection mode info":
  - set the IE "Reconfiguration" in the variable INTEGRITY_PROTECTION_INFO to FALSE; and
  - clear the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.

The procedure ends.

8.3.6.3 Reception of HANDOVER TO UTRAN COMMAND message by the UE

The UE shall be able to receive a HANDOVER TO UTRAN COMMAND message and perform an inter-RAT handover, even if no prior UE measurements have been performed on the target UTRAN cell and/or frequency.

The UE shall act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following. The UE shall:

- store a U-RNTI value (32 bits), which is derived by the IEs "SRNC identity" (12 bits) and "S-RNTI 2" (10 bits) included in IE "U-RNTI-short". In order to produce a full size U-RNTI value, a full size "S-RNTI" (20 bits) shall be derived by padding the IE "S-RNTI 2" with 10 zero bits in the most significant positions; and

- initialise the variable ESTABLISHED_SIGNALLING_CONNECTIONS with the signalling connections that remains after the handover according to the specifications of the source RAT;

- initialise the variable UE_CAPABILITIES_TRANSFERRED with the UE capabilities that have been transferred to the network up to the point prior to the handover, if any;

- initialise the variable TIMERS_AND_CONSTANTS to the default values and start to use those timer and constants values;

- if IE "Specification mode" is set to "Preconfiguration" and IE "Preconfiguration mode" is set to "Predefined configuration":

  - initiate the radio bearer and transport channel configuration in accordance with the predefined parameters identified by the IE "Predefined configuration identity";

  - initiate the physical channels in accordance with the predefined parameters identified by the IE "Predefined radio configuration identity" and the received physical channel information elements;

  - store information about the established radio access bearers and radio bearers according to the IE "Predefined configuration identity"; and

  - set the IE "RAB Info Post" in the variable ESTABLISHED_RABS and the IE "Re-establishment timer" in the IE "RAB Info" in the variable ESTABLISHED_RABS to "useT314".

- if IE "Specification mode" is set to "Preconfiguration" and IE "Preconfiguration mode" is set to "Default configuration":

  - initiate the radio bearer and transport channel configuration in accordance with the default parameters identified by the IE "Default configuration mode" and IE "Default configuration identity";

  - initiate the physical channels in accordance with the default parameters identified by the IE "Default configuration mode" and IE "Default configuration identity" and the received physical channel information elements;

  NOTE IE "Default configuration mode" specifies whether the FDD or TDD version of the default configuration shall be used

  - set the IE "RAB Info Post" in the variable ESTABLISHED_RABS and the IE "Re-establishment timer" in the IE "RAB Info" in the variable ESTABLISHED_RABS to "useT314".

- if IE "Specification mode" is set to "Preconfiguration":

- use the following values for parameters that are neither signalled within the HANDOVER TO UTRAN COMMAND message nor included within pre-defined or default configuration:
  - 0 dB for the power offset $P_{Pilot\text{-}DPDCH}$ bearer in FDD;
  - calculate the Default DPCH Offset Value using the following formula:
    - in FDD:

      Default DPCH Offset Value = (SRNTI 2 mod 600) * 512
    - in TDD:

      Default DPCH Offset Value = (SRNTI 2 mod 7)
  - handle the above Default DPCH Offset Value as if an IE with that value was included in the message, as specified in subclause 8.6.6.21.

- if IE "Specification mode" is set to "Complete specification":
  - initiate the radio bearer, transport channel and physical channel configuration in accordance with the received radio bearer, transport channel and physical channel information elements.

- perform an open loop estimation to determine the UL transmission power according to subclause 8.5.3;

- if ciphering has been activated and ongoing in the radio access technology from which inter- RAT handover is performed:
  - for the CN domain as in the IE "CN domain identity" which is included in the IE "RAB info" of the IE "RAB information to setup":
    - set the HFN component of the COUNT-C variable for all UL and DL radio bearers and all UL and DL signalling radio bearers that use RLC-AM and RLC-UM to the START value as stored in the USIM for that CN domain; and
    - set the remaining LSBs of the HFN component of COUNT-C to zero;
    - set the HFN component of the COUNT-C variable for all UL and DL radio bearers and all UL and DL signalling radio bearers that use the transparent mode of RLC to zero, while not incrementing the value of the HFN component of the COUNT-C variable at each CFN cycle; and
    - set the CFN component of the COUNT-C variable to the value of the CFN as calculated in subclause 8.5.15;
    - set the IE "Status" in the variable CIPHERING_STATUS to "Started";
    - apply the same ciphering status (ciphered/unciphered) as prior to inter-RAT handover;
    - if the change of algorithm is requested by means of the IE "Ciphering algorithm":
      - apply this algorithm and apply ciphering immediately upon reception of the HANDOVER TO UTRAN COMMAND.

If the UE succeeds in establishing the connection to UTRAN, it shall:

- if the IE "Status" in the variable CIPHERING_STATUS of a CN domain is set to "Started" and transparent mode radio bearers have been established by this procedure for that CN domain:

- include the IE "COUNT-C activation time" in the response message and specify a CFN value other than the default, "Now" for this IE;
- at the CFN value as indicated in the response message in the IE "COUNT-C activation time":
  - set the HFN component of the COUNT-C variable to the START value as indicated in the IE "START list" of the response message for the relevant CN domain; and
  - set the remaining LSBs of the HFN component of COUNT-C to zero;
  - increment the HFN component of the COUNT-C variable by one;
  - set the CFN component of the COUNT-C to the value of the IE "COUNT-C activation time" of the response message. The HFN component and the CFN component completely initialise the COUNT-C variable;
  - step the COUNT-C variable, as normal, at each CFN value. The HFN component is no longer fixed in value but incremented at each CFN cycle.

- transmit a HANDOVER TO UTRAN COMPLETE message on the uplink DCCH, using the new ciphering configuration, only if ciphering has been started;
- when the HANDOVER TO UTRAN COMPLETE message has been submitted to lower layers for transmission:
  - enter UTRA RRC connected mode in state CELL_DCH;
  - initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4.
- and the procedure ends.

10.3.3.43 UE Timers and Constants in connected mode

This information element specifies timer- and constants values used by the UE in connected mode.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
T301	MD		Integer(100, 200 .. 2000 by step of 200, 3000, 4000, 6000, 8000)	Value in milliseconds. Default value is 2000. This IE should not be used by the UE in this release of the protocol.
N301	MD		Integer(0..7)	Default value is 2. This IE should not be used by the UE in this release of the protocol.
T302	MD		Integer(100, 200... 2000 by step of 200, 3000, 4000, 6000, 8000)	Value in milliseconds. Default value is 4000.
N302	MD		Integer(0..7)	Default value is 3.
T304	MD		Integer(100, 200, 400, 1000, 2000)	Value in milliseconds. Default value is 2000. At least one spare value is needed. Note 1.
N304	MD		Integer(0..7)	Default value is 2. Note 1.
T305	MD		Integer(5, 10, 30, 60, 120, 360, 720, infinity)	Value in minutes. Default value is 30. Infinity means no update
T307	MD		Integer(5, 10, 15, 20, 30, 40, 50)	Value in seconds. Default value is 30.
T308	MD		Integer(40, 80, 160, 320)	Value in milliseconds. Default value is 160. Note 1.
T309	MD		Integer(1…8)	Value in seconds. Default value is 5. Note 1.
T310	MD		Integer(40 .. 320 by step of 40)	Value in milliseconds. Default value is 160. Note 1.
N310	MD		Integer(0 .. 7)	Default value is 4. Note 1.
T311	MD		Integer(250 .. 2000 by step of 250)	Value in milliseconds. Default value is 2000. Note 1.
T312	MD		Integer (0..15)	Value in seconds. Default value is 1. The value 0 is not used in this version of the specification.
N312	MD		Integer (1, 50, 100, 200, 400, 600, 800, 1000)	Default value is 1.
T313	MD		Integer (0..15)	Value in seconds. Default value is 3. Note 1.
N313	MD		Integer (1, 2, 4, 10, 20, 50, 100, 200)	Default value is 20. Note 1.
T314	MD		Integer(0, 2,	Value in seconds. Default

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			4, 6, 8, 12, 16, 20)	value is 12. Note 1.
T315	MD		Integer (0,10, 30, 60, 180, 600, 1200, 1800)	Value in seconds. Default value is 180. Note 1.
N315	MD		Integer (1, 50, 100, 200, 400, 600, 800, 1000)	Default value is 1. Note 1.
T316	MD		Integer(0, 10, 20, 30, 40, 50, infinity)	Value in seconds. Default value is 30.
T317	MD		Integer (0,10, 30, 60, 180, 600, 1200, 1800)	Value in seconds Default value is 180.

~~NOTE 1: If the value of SIB1 changes, the UE shall re-read SIB1 and use the new value of the parameter, if modified.~~

3GPP TSG-RAN WG2 Meeting #27
Orlando, FL, USA, Feb 18-22, 2002

Tdoc R2-020474

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1270** ⌘ **rev** **r1** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Actions at reception of system information block type 1
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	2002-02-21
Category:	⌘	**F**
Release:	⌘	R99

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.

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: ⌘

1. In the CR1081r1 it was introduced that the UE shall read SIB1 also in connected mode. 8.1.1.6.1 gives then now that both in idle and connected mode then the UE shall

   - store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS.

   However, the intention is that these timers and constants should be those in the SIB1 of the cell where the RRC connection was established, or sent from SRNC to UE in the UTRAN MOBILITY INFORMATION message. These timers shall not be changed during the RRC connection due to that the SIB1 is different in different cells. If the SRNC would like to change these values during an RRC connection then the UTRAN MOBILITY INFORMATION message should be used.

   In Section 8.3.3.3 for UTRAN MOBILITY INFORMATION message there is a correct statement how the UE should handle the values received. This text is somewhat in conflict with the text in 8.1.1.6.1.

2. During an RRC connection establishment, the UE may perform cell reselection. Since the IE "UE Timers and constants in connected mode" in SIB 1 contains different values in different cells and may also change within a cell, the following need clarification:

   a) Whether the UE obeys the values applicable for the RRC connection establishment procedure (e.g. T300, N300) currently sent in the serving cell or keeps the values read in the cell where it originally initiated to procedure.

   b) Exactly at which point the UE starts disregarding new values in SIB1 – which should be the point when the UE enters connected mode. Therefore statements need to be added to say when the UE enters UTRA RRC connected mode, for the RRC connection establishment and inter-RAT

handover to UTRAN procedure. Moreover, in the Inter-RAT handover to UTRAN procedure, it is not explicitely stated which RRC state the UE shall enter. Based on other received information elements (such as dedicated physical channels) it sould be obvious that the state is CELL_DCH.

3. The use of the CN domain specific DRX cycle length coefficient whilst in connected mode, and the handling of this IE if received in a UTRAN MOBILITY INFO message is not clear.

Summary of change: ⌘

Correction 1

In the system information procedure it is stated that the timers and constants in SIB 1 shall only be stored if the UE has not yet entered UTRA RRC connected mode.

Impact analysis:

Impacted functionality: Reception of system information block type 1 in connected mode.

Correction: How the timers and constants included in the system information block type 1 is handled in connected mode is defined according to the common understanding.

Correction to a function where the specification was ambigious. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If the UE is not implemented according to the correction, but UTRAN is, and vice versa, the UE may use different timers and constants than assumed by UTRAN. In most cases the consequences are minor. However, for a few timers, namely T307, T314, T315 and T317, the UE may release radio bearers and/or transit to idle mode at a different point than expected by UTRAN. This may cause that the UE and/or the service is unavailable for some time.

Correction 2

In the RRC connection establishment procedure, it is stated that the UE enters UTRA RRC connected mode at reception of RRC CONNECTION SETUP (except for the failure cases).

In the Inter-RAT handover to UTRAN procedure, it is stated that the UE enters UTRA RRC connected mode at the reception of HANDOVER TO UTRAN COMMAND. It is also said the UE enters CELL_DCH state.

Impact analysis:

Impacted functionality: Inter-RAT handover to UTRAN.

Correction: In the Inter-RAT handover to UTRAN procedure it is stated that the UE shall enter CELL_DCH state, which is according to the current understanding.

Correction to a function where the specification was missing a rule. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If the UE does not implement the change, but UTRAN does, the UE might go to e.g. CELL_FACH state while the network assumes CELL_DCH state, and the RRC connection will be lost. A similar behaviour might occur in the opposite

		situation. Correction 3 It is clarified that value of the IE 'CN domain specific DRX cycle length coefficient' that is read from SIB1 whilst in idle mode is stored for use when in connected mode. Whilst in connected mode if the IE 'CN domain specific DRX cycle length coefficient' is received in a UTRAN MOBILITY INFO message then this value overwrites the value that was read from SIB1 and stored whilst the UE was in idle mode.
Consequences if not approved:	⌘	Unclear specification. Risk of interoperability problems (see impact analysis above).

Clauses affected:	⌘	8.1.1.6.1, 8.1.3.6, 8.3.3.3, 8.3.6.3, 10.3.3.43		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.3.0, CR 1271
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.

8.1.1.6.1 System Information Block type 1

The UE should store all relevant IEs included in this system information block if the "PLMN Type" in the variable SELECTED_PLMN has the value "GSM-MAP" and the IE "PLMN type" in the Master Information Block has the value "GSM-MAP" or "GSM-MAP and ANSI-41". The UE shall also:

- check that the cell, according to information included in IE "CN common GSM-MAP NAS system information", is suitable [4];
- if in connected mode:
  - not forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers.
- if in idle mode:
  - forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers.
- for the IE "CN domain system information list":
  - for each IE "CN domain system information" that is present:
    - check that the cell, according to information included in IE "CN domain specific NAS system information", is suitable [4];
    - if in connected mode:
      - not forward the content of the IE "CN common GSM-MAP NAS system information" to upper layers.
    - if in idle mode:
      - forward the content of the IE "CN domain specific NAS system information" and the IE "CN domain identity" to upper layers.
      - use the IE "CN domain specific DRX cycle length coefficient" to calculate frame number for the Paging Occasions as specified in [4]. Hans: indent changed to B4]
      - store the value of the IE "CN domain specific DRX cycle length coefficient" for use in connected mode.
  - if an IE "CN domain system information" is not present for a particular CN domain:
    - indicate to upper layers that no CN system information is available for that CN domain.

~~- use the values in the IE "UE Timers and constants in idle mode" for the relevant timers and constants;~~

- if the UE has not yet entered UTRA RRC connected mode:
  - store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS. [Note to Hans: changed indentation to B2]
- use the values stored in the variable TIMERS_AND_CONSTANTS for the relevant timers and constants;

8.1.3.6 Reception of an RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the variable INITIAL_UE_IDENTITY.

If the values are different, the UE shall:

- ignore the rest of the message.

If the values are identical, the UE shall:

- stop timer T300, and act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
  - if the UE will be in the CELL_FACH state at the conclusion of this procedure:
    - if the IE "Frequency info" is included:
      - select a suitable UTRA cell according to [4] on that frequency;
    - select PRACH according to subclause 8.5.17;
    - select Secondary CCPCH according to subclause 8.5.19;
    - ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- perform the physical layer synchronization procedure as specified in [29];
- enter UTRA RRC connected mode, in a state according to subclause 8.6.3.3;
- submit an RRC CONNECTION SETUP COMPLETE message to the lower layers on the uplink DCCH after successful state transition per subclause 8.6.3.3, with the contents set as specified below:
  - set the IE "RRC transaction identifier" to:
    - the value of "RRC transaction identifier" in the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS; and
    - clear that entry.
  - if the USIM is present:
    - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message with the corresponding START value that is stored in the USIM [50]; and then
    - set the START value stored in the USIM [50] for any CN domain to the value "THRESHOLD" of the variable START_THRESHOLD.
  - if the USIM is not present:
    - set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message to zero;
    - set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the default value [40].
  - retrieve its UTRA UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
  - include this in IE "UE radio access capability" and IE "UE radio access capability extension", provided this IE is included in variable UE_CAPABILITY_REQUESTED;
  - retrieve its inter-RAT-specific UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
  - include this in IE "UE system specific capability".

When the RRC CONNECTION SETUP COMPLETE message has been submitted to lower layers for transmission the UE shall:

- if the UE has entered CELL_FACH state:
  - start timer T305 using its initial value if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in system information block type 1.
- store the contents of the variable UE_CAPABILITY_REQUESTED in the variable UE_CAPABILITY_TRANSFERRED;
- initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4;
- consider the procedure to be successful;

And the procedure ends.

8.3.3.3 Reception of UTRAN MOBILITY INFORMATION message by the UE

When the UE receives a UTRAN MOBILITY INFORMATION message, it shall:

- act on received information elements as specified in subclause 8.6;
- if the IE "UE Timers and constants in connected mode" is present:
  - store the values of the IE "UE Timers and constants in connected mode" in the variable TIMERS_AND_CONSTANTS, replacing any previously stored value for each timer and constant; and
  - for each updated timer value:
    - start using the new value next time the timer is started;
  - for each updated constant value:
    - start using the new value directly;
- if the IE "CN domain specific DRX cycle length coefficient" is present:
  - store the value of the IE "CN domain specific DRX cycle length coefficient" for that CN domain, replacing any previously stored value; and
  - use the value to determine the connected mode paging occasions according to [4].
- set the IE "RRC transaction identifier" in the UTRAN MOBILITY INFORMATION CONFIRM message to the value of "RRC transaction identifier" in the entry for the UTRAN MOBILITY INFORMATION message in the table "Accepted transactions" in the variable TRANSACTIONS; and
- clear that entry;
- if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":
  - include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
- if the UTRAN MOBILITY INFORMATION message contained the IE "Integrity protection mode info" with the IE "Integrity protection mode command" set to "Modify":
  - include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.
- if the variable PDCP_SN_INFO is non-empty:
  - include the IE "RB with PDCP information list" in the UTRAN MOBILITY INFORMATION CONFIRM message and set it to the value of the variable PDCP_SN_INFO.
- if the received UTRAN MOBILITY INFORMATION message included the IE "Downlink counter synchronisation info":
  - calculate the START value according to subclause 8.5.9;
  - include the calculated START values for each CN domain in the IE "START list" in the IE "Uplink counter synchronisation info" in the UTRAN MOBILITY INFORMATION CONFIRM message.

- transmit a UTRAN MOBILITY INFORMATION CONFIRM message on the uplink DCCH using AM RLC;
- if the IE "Integrity protection mode info" was present in the UTRAN MOBILITY INFORMATION message:
  - start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted UTRAN MOBILITY INFORMATION CONFIRM message.
- if the variable PDCP_SN_INFO is empty; and
  - if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":
    - when RLC has confirmed the successful transmission of the UTRAN MOBILITY INFORMATION CONFIRM message, perform the actions below.
  - if the UTRAN MOBILITY INFORMATION message did not contain the IE "Ciphering mode info":
    - when RLC has been requested to transmit the UTRAN MOBILITY INFORMATION CONFIRM message, perform the actions below.
- if the variable PDCP_SN_INFO is non-empty:
  - when RLC has confirmed the successful transmission of the UTRAN MOBILITY INFORMATION CONFIRM message:
    - for each radio bearer in the variable PDCP_SN_INFO:
      - if the IE "RB started" in the variable ESTABLISHED_RABS is set to "started":
        - configure the RLC entity for that radio bearer to "continue".
    - clear the variable PDCP_SN_INFO.
- if the UTRAN MOBILITY INFORMATION message contained the IE "Ciphering mode info":
  - resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM;
  - set the IE "Reconfiguration" in the variable CIPHERING_STATUS to FALSE; and
  - clear the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
- if the UTRAN MOBILITY INFORMATION message contained the IE "Integrity protection mode info":
  - set the IE "Reconfiguration" in the variable INTEGRITY_PROTECTION_INFO to FALSE; and
  - clear the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.

The procedure ends.

8.3.6.3 Reception of HANDOVER TO UTRAN COMMAND message by the UE

The UE shall be able to receive a HANDOVER TO UTRAN COMMAND message and perform an inter-RAT handover, even if no prior UE measurements have been performed on the target UTRAN cell and/or frequency.

The UE shall act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following. The UE shall:

- store a U-RNTI value (32 bits), which is derived by the IEs "SRNC identity" (12 bits) and "S-RNTI 2" (10 bits) included in IE "U-RNTI-short". In order to produce a full size U-RNTI value, a full size "S-RNTI" (20 bits) shall be derived by padding the IE "S-RNTI 2" with 10 zero bits in the most significant positions; and

- initialise the variable ESTABLISHED_SIGNALLING_CONNECTIONS with the signalling connections that remains after the handover according to the specifications of the source RAT;

- initialise the variable UE_CAPABILITIES_TRANSFERRED with the UE capabilities that have been transferred to the network up to the point prior to the handover, if any;

- initialise the variable TIMERS_AND_CONSTANTS to the default values and start to use those timer and constants values;

- if IE "Specification mode" is set to "Preconfiguration" and IE "Preconfiguration mode" is set to "Predefined configuration":

  - initiate the radio bearer and transport channel configuration in accordance with the predefined parameters identified by the IE "Predefined configuration identity";

  - initiate the physical channels in accordance with the predefined parameters identified by the IE "Predefined radio configuration identity" and the received physical channel information elements;

  - store information about the established radio access bearers and radio bearers according to the IE "Predefined configuration identity"; and

  - set the IE "RAB Info Post" in the variable ESTABLISHED_RABS and the IE "Re-establishment timer" in the IE "RAB Info" in the variable ESTABLISHED_RABS to "useT314".

- if IE "Specification mode" is set to "Preconfiguration" and IE "Preconfiguration mode" is set to "Default configuration":

  - initiate the radio bearer and transport channel configuration in accordance with the default parameters identified by the IE "Default configuration mode" and IE "Default configuration identity";

  - initiate the physical channels in accordance with the default parameters identified by the IE "Default configuration mode" and IE "Default configuration identity" and the received physical channel information elements;

  NOTE IE "Default configuration mode" specifies whether the FDD or TDD version of the default configuration shall be used

  - set the IE "RAB Info Post" in the variable ESTABLISHED_RABS and the IE "Re-establishment timer" in the IE "RAB Info" in the variable ESTABLISHED_RABS to "useT314".

- if IE "Specification mode" is set to "Preconfiguration":

- use the following values for parameters that are neither signalled within the HANDOVER TO UTRAN COMMAND message nor included within pre-defined or default configuration:
  - 0 dB for the power offset $P_{Pilot\text{-}DPDCH}$ bearer in FDD;
  - calculate the Default DPCH Offset Value using the following formula:
    - in FDD:

      Default DPCH Offset Value = (SRNTI 2 mod 600) * 512
    - in TDD:

      Default DPCH Offset Value = (SRNTI 2 mod 7)
  - handle the above Default DPCH Offset Value as if an IE with that value was included in the message, as specified in subclause 8.6.6.21.

- if IE "Specification mode" is set to "Complete specification":
  - initiate the radio bearer, transport channel and physical channel configuration in accordance with the received radio bearer, transport channel and physical channel information elements.

- perform an open loop estimation to determine the UL transmission power according to subclause 8.5.3;

- if ciphering has been activated and ongoing in the radio access technology from which inter- RAT handover is performed:
  - for the CN domain as in the IE "CN domain identity" which is included in the IE "RAB info" of the IE "RAB information to setup":
    - set the HFN component of the COUNT-C variable for all UL and DL radio bearers and all UL and DL signalling radio bearers that use RLC-AM and RLC-UM to the START value as stored in the USIM for that CN domain; and
    - set the remaining LSBs of the HFN component of COUNT-C to zero;
    - set the HFN component of the COUNT-C variable for all UL and DL radio bearers and all UL and DL signalling radio bearers that use the transparent mode of RLC to zero, while not incrementing the value of the HFN component of the COUNT-C variable at each CFN cycle; and
    - set the CFN component of the COUNT-C variable to the value of the CFN as calculated in subclause 8.5.15;
    - set the IE "Status" in the variable CIPHERING_STATUS to "Started";
    - apply the same ciphering status (ciphered/unciphered) as prior to inter-RAT handover;
    - if the change of algorithm is requested by means of the IE "Ciphering algorithm":
      - apply this algorithm and apply ciphering immediately upon reception of the HANDOVER TO UTRAN COMMAND.

If the UE succeeds in establishing the connection to UTRAN, it shall:

- if the IE "Status" in the variable CIPHERING_STATUS of a CN domain is set to "Started" and transparent mode radio bearers have been established by this procedure for that CN domain:

- include the IE "COUNT-C activation time" in the response message and specify a CFN value other than the default, "Now" for this IE;
- at the CFN value as indicated in the response message in the IE "COUNT-C activation time":
  - set the HFN component of the COUNT-C variable to the START value as indicated in the IE "START list" of the response message for the relevant CN domain; and
  - set the remaining LSBs of the HFN component of COUNT-C to zero;
  - increment the HFN component of the COUNT-C variable by one;
  - set the CFN component of the COUNT-C to the value of the IE "COUNT-C activation time" of the response message. The HFN component and the CFN component completely initialise the COUNT-C variable;
  - step the COUNT-C variable, as normal, at each CFN value. The HFN component is no longer fixed in value but incremented at each CFN cycle.

- transmit a HANDOVER TO UTRAN COMPLETE message on the uplink DCCH, using the new ciphering configuration, only if ciphering has been started;
- when the HANDOVER TO UTRAN COMPLETE message has been submitted to lower layers for transmission:
  - enter UTRA RRC connected mode in state CELL_DCH;
  - initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4.
- and the procedure ends.

10.3.3.43 UE Timers and Constants in connected mode

This information element specifies timer- and constants values used by the UE in connected mode.

Information Element/Group name	Need	Multi	Type and reference	Semantics description
T301	MD		Integer(100, 200 .. 2000 by step of 200, 3000, 4000, 6000, 8000)	Value in milliseconds. Default value is 2000. This IE should not be used by the UE in this release of the protocol.
N301	MD		Integer(0..7)	Default value is 2. This IE should not be used by the UE in this release of the protocol.
T302	MD		Integer(100, 200... 2000 by step of 200, 3000, 4000, 6000, 8000)	Value in milliseconds. Default value is 4000.
N302	MD		Integer(0..7)	Default value is 3.
T304	MD		Integer(100, 200, 400, 1000, 2000)	Value in milliseconds. Default value is 2000. At least one spare value is needed. Note 1.
N304	MD		Integer(0..7)	Default value is 2. Note 1.
T305	MD		Integer(5, 10, 30, 60, 120, 360, 720, infinity)	Value in minutes. Default value is 30. Infinity means no update
T307	MD		Integer(5, 10, 15, 20, 30, 40, 50)	Value in seconds. Default value is 30.
T308	MD		Integer(40, 80, 160, 320)	Value in milliseconds. Default value is 160. Note 1.
T309	MD		Integer(1…8)	Value in seconds. Default value is 5. Note 1.
T310	MD		Integer(40 .. 320 by step of 40)	Value in milliseconds. Default value is 160. Note 1.
N310	MD		Integer(0 .. 7)	Default value is 4. Note 1.
T311	MD		Integer(250 .. 2000 by step of 250)	Value in milliseconds. Default value is 2000. Note 1.
T312	MD		Integer (0..15)	Value in seconds. Default value is 1. The value 0 is not used in this version of the specification.
N312	MD		Integer (1, 50, 100, 200, 400, 600, 800, 1000)	Default value is 1.
T313	MD		Integer (0..15)	Value in seconds. Default value is 3. Note 1.
N313	MD		Integer (1, 2, 4, 10, 20, 50, 100, 200)	Default value is 20. Note 1.
T314	MD		Integer(0, 2,	Value in seconds. Default

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			4, 6, 8, 12, 16, 20)	value is 12. Note 1.
T315	MD		Integer (0,10, 30, 60, 180, 600, 1200, 1800)	Value in seconds. Default value is 180. Note 1.
N315	MD		Integer (1, 50, 100, 200, 400, 600, 800, 1000)	Default value is 1. Note 1.
T316	MD		Integer(0, 10, 20, 30, 40, 50, infinity)	Value in seconds. Default value is 30.
T317	MD		Integer (0,10, 30, 60, 180, 600, 1200, 1800)	Value in seconds Default value is 180.

~~NOTE 1: If the value of SIB1 changes, the UE shall re-read SIB1 and use the new value of the parameter, if modified.~~

3GPP TSG-WG2 Meeting #27
Orlando, Florida, February 18th – 22nd, 2002

R2-020548

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1268** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Correction to inter frequency measurements
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	12/02/02
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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 current specification is ambiguous whether or not the UE shall require compressed mode to be configured for inter frequency measurement events that are based on measurements in the currently used frequency (like event 2d / 2f)

Summary of change: ⌘ The procedural text is changed to reflect that a UE shall only reject a measurement control message if a inter frequency measurement event is configured that needs measurements on another frequency then the current frequency and the UE needs compressed mode to do the measurements on the other frequency

1st Revision:

It is stated that if the cell info list is empty the UE shall accept this measurement

It is stated that if an inter frequency measurement exists and the cell info list is empty, and cells are added by modifyign the measurement and no compressed mode is configured for that measurement the UE shall reject the measurement

A note is added in 14.2.1.4 and 14.2.1.6 in order to state that although the the measurement events 2d and 2f are called inter frequency measurements the UE shall not require compressed mode in order to perform the measurement if the inter-frequency cell info list is empty.

2nd Revision:

There is no such a case for the inter RAT measurements, so the reference to inter-RAT measurements is removed.

Isolated impact analysis:

The affected functionality is inter frequency measurement event 2d and 2f

- Correction to a function where the specification was :

		o ambiguous or not sufficiently explicit. • Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	The specification would be ambiguous, and UEs might reject measurement control messages that configure measurement events 2d or 2f without configuring compressed mode.

Clauses affected:	⌘	8.4.1.3, 14.2.1.4, 14.2.1.6		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1267r2
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.

8.4.1.3 Reception of MEASUREMENT CONTROL by the UE

Upon reception of a MEASUREMENT CONTROL message the UE shall perform actions specified in subclause 8.6 unless otherwise specified below.

The UE shall:

- read the IE "Measurement command";
- if the IE "Measurement command" has the value "setup":
  - store this measurement in the variable MEASUREMENT_IDENTITY according to the IE "measurement identity", first releasing any previously stored measurement with that identity if that exists;
  - for measurement types "inter-RAT measurement" or "inter-frequency measurement":
    - if, according to its measurement capabilities, the UE requires compressed mode to perform the~~e~~at measurement type ~~measurements~~ and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; or
    - the IE “Inter-frequency cell info list” for that measurement identity is empty; or
    - if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements:
      - if the measurement is valid in the current RRC state of the UE:
        - begin measurements according to the stored control information for this measurement identity.
  - for measurement type "UE positioning measurement":
    - if the UE is in CELL_FACH state:
      - if IE "Positioning Method" is set to "OTDOA":
        - if IE "Method Type" is set to "UE assisted":
          - if IE "UE positioning OTDOA assistance data for UE assisted" is not included:
            - if System Information Block type 15.4 is broadcast:
              - read System Information Block type 15.4.
            - act as specified in subclause 8.6.7.19.2.
        - if IE "Method Type" is set to "UE based":
          - if IE "UE positioning OTDOA assistance data for UE based" is not included:
            - if System Information Block type 15.5 is broadcast:
              - read System Information Block type 15.5.
            - act as specified in subclause 8.6.7.19.2a.
    - for any other measurement type:
      - if the measurement is valid in the current RRC state of the UE:
        - begin measurements according to the stored control information for this measurement identity.
- if the IE "Measurement command" has the value "modify"~~:~~

then for all IEs present in the MEASUREMENT CONTROL message:

- if a measurement was stored in the variable MEASUREMENT_IDENTITY associated to the identity by the IE "measurement identity":[indentation changed to B2]

- for measurement types "inter-frequency measurement" that require measurements on another frequency then the actually used frequency, or that require measurements on another RAT:
  - if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; and
  - the IE “Inter-frequency cell info list” for that measurement identity is empty; or
  - if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements:
    - replace the corresponding information stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;
    - resume the measurements according to the new stored measurement control information.
- for any other measurement type:
  - replace the corresponding information stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;
  - resume the measurements according to the new stored measurement control information.
- otherwise:
  - set the variable CONFIGURATION_INCOMPLETE to TRUE.

- if the IE "measurement command" has the value "release":
  - terminate the measurement associated with the identity given in the IE "measurement identity";
  - clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY.
- if the IE "DPCH Compressed Mode Status Info" is present,:
  - and if, as the result of this message, UE will have more than one transmission gap pattern sequence with the same measurement purpose active (according to IE 'TGMP' in variable TGPS_IDENTITY):
    - set the variable CONFIGURATION_INCOMPLETE to TRUE.
  - if pattern sequence corresponding to IE "TGPSI" is already active (according to "TGPS Status Flag"):
    - deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message.
  - after the time indicated by IE "TGPS reconfiguration CFN" has elapsed:
    - activate the pattern sequence stored in the variable TGPS_IDENTITY corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "active" at the time indicated by IE "TGCFN"; and
    - begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;
    - if the values of IE "TGPS reconfiguration CFN" and IE "TGCFN" are equal:
      - start the concerned pattern sequence immediately at that CFN.
  - not alter pattern sequences stored in variable TGPS_IDENTITY, but not identitifed in IE "TGPSI".
- if the UE in CELL_FACH state receives a MEASUREMENT CONTROL message, which indicates the same measurement identity as that stored in the variable MEASUREMENT_IDENTITY:

- update the stored information with the traffic volume measurement control information in variable MEASUREMENT_IDENTITY; and
- refrain from updating the traffic volume measurement control information associated with this measurement identity in the variable MEASUREMENT_IDENTITY with the information received in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11) until this measurement is explicitly released with another MEASUREMENT CONTROL message.

- if the IE "Read SFN indicator" included in the IE "Cell info" of an inter-frequency cell is set to TRUE and the variable UE_CAPABILITY_TRANSFERRED has the DL "Measurement capability" for "FDD measurements" set to TRUE (the UE requires DL compressed mode in order to perform measurements on FDD):
  - set the variable CONFIGURATION_INCOMPLETE to TRUE.
- clear the entry for the MEASUREMENT CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS;

The UE may:

- if the IE "Measurement command" has the value "setup":
  - for measurement type "UE positioning measurement":
    - if the UE is CELL_FACH state:
      - if IE "Positioning Method" is set to "GPS":
        - if IE "UE positioning GPS assistance data" is not included and variable UE_POSITIONING_GPS_DATA is empty:
          - if System Information Block types 15, 15.1, 15.2 and 15.3 are broadcast:
            - read System Information Block types 15, 15.1, 15.2 and 15.3.
          - act as specified in subclause 8.6.7.19.3.
- and the procedure ends.

14.2.1.4 Event 2d: The estimated quality of the currently used frequency is below a certain threshold

Note: In case the IE “Inter-frequency cell info list” is empty the UE shall not require compressed mode to be configured in order to perform this measurement

When an inter-frequency measurement configuring event 2d is set up, the UE shall:

- create a variable TRIGGERED_2D_EVENT related to that measurement, which shall initially be set to FALSE;
- delete this variable when the measurement is released.

When event 2d is configured in the UE within a measurement, the UE shall:

- if equation 1 below has been fulfilled for the used frequency during the time "Time to trigger":
  - if the variable TRIGGERED_2D_EVENT is set to FALSE:
    - set the variable TRIGGERED_2D_EVENT to TRUE;
    - send a measurement report with IEs set as below:
      - set in "inter-frequency event results": "inter-frequency event identity" to "2d" and no IE "Inter-frequency cells";
      - set the IE "measured results" and the IE "additional measured results" according to 8.4.2.

- if the variable TRIGGERED_2D_EVENT is set to TRUE and if equation 2 is fulfilled for the used frequency:
  - set the variable TRIGGERED_2D_EVENT to FALSE.

Triggering condition:

Equation 1:

$$Q_{Used} \leq T_{Used\,2d} - H_{2d}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2d}}$ is the absolute threshold that applies for the used frequency and event 2d.

$\boldsymbol{H_{2d}}$ is the hysteresis parameter for the event 2d.

Leaving triggered state condition:

Equation 2:

$$Q_{Used} > T_{Used\,2d} + H_{2d}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2d}}$ is the absolute threshold that applies for the used frequency and event 2d.

$\boldsymbol{H_{2d}}$ is the hysteresis parameter for the event 2d.

14.2.1.6 Event 2 f: The estimated quality of the currently used frequency is above a certain threshold

Note: In case the IE “Inter-frequency cell info list” is empty the UE shall not require compressed mode to be configured in order to perform this measurement

When an inter-frequency measurement configuring event 2f is set up, the UE shall:

- create a variable TRIGGERED_2F_EVENT related to that measurement, which shall initially be set to FALSE;
- delete this variable when the measurement is released.

When event 2f is configured in the UE within a measurement, the UE shall:

- if equation 1 below has been fulfilled for the used frequency during the time "Time to trigger":
  - if the variable TRIGGERED_2F_EVENT is set to FALSE:
    - set the variable TRIGGERED_2F_EVENT to TRUE;
    - send a measurement report with IEs set as below:
      - set in "inter-frequency event results": "inter-frequency event identity" to "2f", and no IE "Inter-frequency cells";
      - set the IE "measured results" and the IE "additional measured results" according to 8.4.2.
- if the variable TRIGGERED_2F_EVENT is set to TRUE and if equation 2 is fulfilled for the used frequency:
  - set the variable TRIGGERED_2F_EVENT to FALSE.

Triggering condition:

Equation 1:

$$Q_{Used} \geq T_{Used\,2f} + H_{2f}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2f}}$ is the absolute threshold that applies for the used frequency and event 2f.

$\boldsymbol{H_{2f}}$ is the hysteresis parameter for the event 2f.

Leaving triggered state condition:

Equation 2:

$$Q_{Used} < T_{Used\,2f} - H_{2f}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2f}}$ is the absolute threshold that applies for the used frequency and event 2f.

$\boldsymbol{H_{2f}}$ is the hysteresis parameter for the event 2f.

3GPP TSG-WG2 Meeting #27
Orlando, Florida, February 18th – 22nd, 2002

R2-020547

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1267** ⌘ **rev** **r2** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Correction to inter frequency measurements
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	12/02/02
Category:	⌘	**F**
Release:	⌘	R99

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.

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 current specification is ambiguous whether or not the UE shall require compressed mode to be configured for inter frequency measurement events that are based on measurements in the currently used frequency (like event 2d / 2f)

Summary of change: ⌘ The procedural text is changed to reflect that a UE shall only reject a measurement control message if a inter frequency measurement event is configured that needs measurements on another frequency then the current frequency and the UE needs compressed mode to do the measurements on the other frequency

1st Revision:

It is stated that if the cell info list is empty the UE shall accept this measurement

It is stated that if an inter frequency measurement exists and the cell info list is empty, and cells are added by modifyign the measurement and no compressed mode is configured for that measurement the UE shall reject the measurement

A note is added in 14.2.1.4 and 14.2.1.6 in order to state that although the the measurement events 2d and 2f are called inter frequency measurements the UE shall not require compressed mode in order to perform the measurement if the inter-frequency cell info list is empty.

2nd Revision:

There is no such a case for the inter RAT measurements, so the reference to inter-RAT measurements is removed.

Isolated impact analysis:

The affected functionality is inter frequency measurement event 2d and 2f

- Correction to a function where the specification was :

		o ambiguous or not sufficiently explicit. • Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	The specification would be ambiguous, and UEs might reject measurement control messages that configure measurement events 2d or 2f without configuring compressed mode.

Clauses affected:	⌘	8.4.1.3, 14.2.1.4, 14.2.1.6		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.3.0, CR 1268
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.

8.4.1.3 Reception of MEASUREMENT CONTROL by the UE

Upon reception of a MEASUREMENT CONTROL message the UE shall perform actions specified in subclause 8.6 unless otherwise specified below.

The UE shall:

- read the IE "Measurement command";
- if the IE "Measurement command" has the value "setup":
  - store this measurement in the variable MEASUREMENT_IDENTITY according to the IE "measurement identity", first releasing any previously stored measurement with that identity if that exists;
  - for measurement types "inter-RAT measurement" or "inter-frequency measurement":
    - if, according to its measurement capabilities, the UE requires compressed mode to perform the~~e~~at measurement type ~~measurements~~ and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; or
    - the IE “Inter-frequency cell info list” for that measurement identity is empty; or
    - if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements:
      - if the measurement is valid in the current RRC state of the UE:
        - begin measurements according to the stored control information for this measurement identity.
  - for measurement type "UE positioning measurement":
    - if the UE is in CELL_FACH state:
      - if IE "Positioning Method" is set to "OTDOA":
        - if IE "Method Type" is set to "UE assisted":
          - if IE "UE positioning OTDOA assistance data for UE assisted" is not included:
            - if System Information Block type 15.4 is broadcast:
              - read System Information Block type 15.4.
            - act as specified in subclause 8.6.7.19.2.
        - if IE "Method Type" is set to "UE based":
          - if IE "UE positioning OTDOA assistance data for UE based" is not included:
            - if System Information Block type 15.5 is broadcast:
              - read System Information Block type 15.5.
            - act as specified in subclause 8.6.7.19.2a.
    - for any other measurement type:
      - if the measurement is valid in the current RRC state of the UE:
        - begin measurements according to the stored control information for this measurement identity.
- if the IE "Measurement command" has the value "modify"~~:~~

then for all IEs present in the MEASUREMENT CONTROL message:

- if a measurement was stored in the variable MEASUREMENT_IDENTITY associated to the identity by the IE "measurement identity":[indentation changed to B2]

- for measurement types "inter-frequency measurement" that require measurements on another frequency then the actually used frequency, or that require measurements on another RAT:
  - if, according to its measurement capabilities, the UE requires compressed mode to perform that measurement type and a compressed mode pattern sequence with an appropriate measurement purpose is simultaneously activated by the IE "DPCH compressed mode status info"; and
  - the IE “Inter-frequency cell info list” for that measurement identity is empty; or
  - if, according to its measurement capabilities, the UE does not require compressed mode to perform the measurements:
    - replace the corresponding information stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;
    - resume the measurements according to the new stored measurement control information.
- for any other measurement type:
  - replace the corresponding information stored in variable MEASUREMENT_IDENTITY associated to the identity indicated by the IE "measurement identity" with the one received in the MEASUREMENT CONTROL message;
  - resume the measurements according to the new stored measurement control information.
- otherwise:
  - set the variable CONFIGURATION_INCOMPLETE to TRUE.

- if the IE "measurement command" has the value "release":
  - terminate the measurement associated with the identity given in the IE "measurement identity";
  - clear all stored measurement control information related associated to this measurement identity in variable MEASUREMENT_IDENTITY.
- if the IE "DPCH Compressed Mode Status Info" is present,:
  - and if, as the result of this message, UE will have more than one transmission gap pattern sequence with the same measurement purpose active (according to IE 'TGMP' in variable TGPS_IDENTITY):
    - set the variable CONFIGURATION_INCOMPLETE to TRUE.
  - if pattern sequence corresponding to IE "TGPSI" is already active (according to "TGPS Status Flag"):
    - deactivate this pattern sequence at the beginning of the frame indicated by IE "TGPS reconfiguration CFN" received in the message.
  - after the time indicated by IE "TGPS reconfiguration CFN" has elapsed:
    - activate the pattern sequence stored in the variable TGPS_IDENTITY corresponding to each IE "TGPSI" for which the "TGPS status flag" is set to "active" at the time indicated by IE "TGCFN"; and
    - begin the inter-frequency and/or inter-RAT measurements corresponding to the pattern sequence measurement purpose of each activated pattern sequence;
    - if the values of IE "TGPS reconfiguration CFN" and IE "TGCFN" are equal:
      - start the concerned pattern sequence immediately at that CFN.
  - not alter pattern sequences stored in variable TGPS_IDENTITY, but not identitifed in IE "TGPSI".
- if the UE in CELL_FACH state receives a MEASUREMENT CONTROL message, which indicates the same measurement identity as that stored in the variable MEASUREMENT_IDENTITY:

- update the stored information with the traffic volume measurement control information in variable MEASUREMENT_IDENTITY; and

- refrain from updating the traffic volume measurement control information associated with this measurement identity in the variable MEASUREMENT_IDENTITY with the information received in System Information Block type 12 (or System Information Block type 11, according to subclause 8.1.1.6.11) until this measurement is explicitly released with another MEASUREMENT CONTROL message.

- if the IE "Read SFN indicator" included in the IE "Cell info" of an inter-frequency cell is set to TRUE and the variable UE_CAPABILITY_TRANSFERRED has the DL "Measurement capability" for "FDD measurements" set to TRUE (the UE requires DL compressed mode in order to perform measurements on FDD):

  - set the variable CONFIGURATION_INCOMPLETE to TRUE.

- clear the entry for the MEASUREMENT CONTROL message in the table "Accepted transactions" in the variable TRANSACTIONS;

The UE may:

- if the IE "Measurement command" has the value "setup":

  - for measurement type "UE positioning measurement":

    - if the UE is CELL_FACH state:

      - if IE "Positioning Method" is set to "GPS":

        - if IE "UE positioning GPS assistance data" is not included and variable UE_POSITIONING_GPS_DATA is empty:

          - if System Information Block types 15, 15.1, 15.2 and 15.3 are broadcast:

            - read System Information Block types 15, 15.1, 15.2 and 15.3.

          - act as specified in subclause 8.6.7.19.3.

- and the procedure ends.

14.2.1.4 Event 2d: The estimated quality of the currently used frequency is below a certain threshold

Note: In case the IE “Inter-frequency cell info list” is empty the UE shall not require compressed mode to be configured in order to perform this measurement

When an inter-frequency measurement configuring event 2d is set up, the UE shall:

- create a variable TRIGGERED_2D_EVENT related to that measurement, which shall initially be set to FALSE;

- delete this variable when the measurement is released.

When event 2d is configured in the UE within a measurement, the UE shall:

- if equation 1 below has been fulfilled for the used frequency during the time "Time to trigger":

  - if the variable TRIGGERED_2D_EVENT is set to FALSE:

    - set the variable TRIGGERED_2D_EVENT to TRUE;

    - send a measurement report with IEs set as below:

      - set in "inter-frequency event results": "inter-frequency event identity" to "2d" and no IE "Inter-frequency cells";

      - set the IE "measured results" and the IE "additional measured results" according to 8.4.2.

- if the variable TRIGGERED_2D_EVENT is set to TRUE and if equation 2 is fulfilled for the used frequency:
  - set the variable TRIGGERED_2D_EVENT to FALSE.

Triggering condition:

Equation 1:

$$Q_{Used} \leq T_{Used\,2d} - H_{2d}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2d}}$ is the absolute threshold that applies for the used frequency and event 2d.

$\boldsymbol{H_{2d}}$ is the hysteresis parameter for the event 2d.

Leaving triggered state condition:

Equation 2:

$$Q_{Used} > T_{Used\,2d} + H_{2d}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2d}}$ is the absolute threshold that applies for the used frequency and event 2d.

$\boldsymbol{H_{2d}}$ is the hysteresis parameter for the event 2d.

14.2.1.6 Event 2 f: The estimated quality of the currently used frequency is above a certain threshold

Note: In case the IE “Inter-frequency cell info list” is empty the UE shall not require compressed mode to be configured in order to perform this measurement

When an inter-frequency measurement configuring event 2f is set up, the UE shall:

- create a variable TRIGGERED_2F_EVENT related to that measurement, which shall initially be set to FALSE;
- delete this variable when the measurement is released.

When event 2f is configured in the UE within a measurement, the UE shall:

- if equation 1 below has been fulfilled for the used frequency during the time "Time to trigger":
  - if the variable TRIGGERED_2F_EVENT is set to FALSE:
    - set the variable TRIGGERED_2F_EVENT to TRUE;
    - send a measurement report with IEs set as below:
      - set in "inter-frequency event results": "inter-frequency event identity" to "2f", and no IE "Inter-frequency cells";
      - set the IE "measured results" and the IE "additional measured results" according to 8.4.2.
- if the variable TRIGGERED_2F_EVENT is set to TRUE and if equation 2 is fulfilled for the used frequency:
  - set the variable TRIGGERED_2F_EVENT to FALSE.

Triggering condition:

Equation 1:

$$Q_{Used} \geq T_{Used\,2f} + H_{2f}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2f}}$ is the absolute threshold that applies for the used frequency and event 2f.

$\boldsymbol{H_{2f}}$ is the hysteresis parameter for the event 2f.

Leaving triggered state condition:

Equation 2:

$$Q_{Used} < T_{Used\,2f} - H_{2f}/2$$

The variables in the formula are defined as follows:

$\boldsymbol{Q_{Used}}$ is the quality estimate of the used frequency.

$\boldsymbol{T_{Used\,2f}}$ is the absolute threshold that applies for the used frequency and event 2f.

$\boldsymbol{H_{2f}}$ is the hysteresis parameter for the event 2f.

3GPP TSG-RAN WG2 Meeting #27
Orlando, USA, 18th – 22nd February 2002

Tdoc R2-020562

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1262** ⌘ **rev** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Corrections to Reporting Cell Status
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	February 22, 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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:	⌘	When UTRAN sets up an inter-RAT (e.g. GSM) measurement, it can include the IE "Reporting cell status" within the IE "Inter-RAT measurement reporting criteria" in the IE "Inter-RAT measurement". In the IE "Reporting cell status", the only choice for inter-RAT measurement is "Report cells within active set or within virtual active set or of the other RAT". With this choice selected, it is possible that the UE would report only cells within active set OR within virtual active set, but not from other RAT, which is not what UTRAN expected.
Summary of change:	⌘	In the semantics description of the choice "Report cells within active set or within virtual active set or of the other RAT" of the IE "Reporting cell status", a note is added to specify that if the choice is selected for inter-RAT measurement, the UE shall report only cells of the other RAT. The handling of the reporting cell status is clarified in procedural description for the case of inter-RAT measurement, intra-frequency, and inter-frequency measurement. Isolated impact analysis: The change has isolated impact on inter-RAT measurement reporting, intra-frequeny measurement reporting, and inter-frequency measurement reporting. It would not affect implementations behaving like indicated in the CR, yet it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	Ambiguities in how the IE "Reporting cell status" is used in inter-RAT measurement reporting, intra-frequency measurement reporting and inter-frequency measurement reporting may lead to unexpected UE behaviour.

Clauses affected:	⌘	8.6.7.9, 10.3.7.61
Other specs	⌘ ☐ Other core specifications	⌘ 25.331 v3.9.0, CR 1261r1

affected:	☐ 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.

8.6.7.9 Reporting Cell Status

If the IE "Reporting Cell Status" is received, the UE shall set the IE "Measured Results" in MEASUREMENT REPORT as follows. The UE shall:

- for intra-frequency measurement and inter-frequency measurement:
  - include the IE "Cell Measured Results" for cells (excluding cells of another RAT) that satisfy the condition (such as "Report cells within active set") specified in the IE "Reporting Cell Status", in descending order by the measurement quantity.
  - the maximum number of the IE "Cell Measured Results" to be included in the IE "Measured Results" is the number specified in the IE "Reporting Cell Status". /* editor's note – one level indented */
- for inter-RAT measurement:
  - include the measurement results for cells of other RAT (e.g., GSM) that satisfy the condition specified in the IE "Reporting Cell Status", in descending order by the measurement quantity.
  - the maximum number of the IE "Measured GSM Cells" to be included in the IE "Measured Results" is the number specified in the IE "Reporting Cell Status".

If the IE "Reporting Cell Status" is not received for intra-frequency, inter-frequency measurement, or inter-RAT measurement, the UE shall:

- for intra-frequency measurement and inter-frequency measurement:
  - exclude the IE "Ceell Mmeasured Rresults" for any cell in MEASUREMENT REPORT.
- for inter-RAT measurement:
  - exclude the IE "Measured GSM Cells" for any cell in MEASUREMENT REPORT.

/*editor's note – section skipped */

10.3.7.61 Reporting Cell Status

Indicates maximum allowed number of cells to report and whether active set cells and/or virtual active set cells and/or monitored set cells on and/or detected set cells used frequency and/or monitored set cells on non used frequency should/should not be included in the IE "Measured results".

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *reported cell*	MP			
>Report cells within active set				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report cells within monitored set cells on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report cells within active set and/or monitored set cells on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report cells within detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>Report cells within monitored set and/or detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report all active set cells + cells within monitored set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active set cells+6)	
>Report all active set cells + cells within detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active set cells+6)	
>Report all active set cells + cells within monitored set and/or detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active set cells+6)	
>Report cells within virtual active set				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Integer(1..6)	
>Report cells within monitored set on non-used frequency				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Integer(1..6)	
>Report cells within monitored and/or virtual active set on non-used frequency				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Integer(1..6)	
>Report all virtual active set cells + cells within monitored set on non-used frequency				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			set cells+6)	
>Report cells within active set or within virtual active set or of the other RAT				If this choice is selected for inter-RAT measurements, the UE shall report only cells of the other RAT. If this choice is selected for intra-frequency or inter-frequency measurements, the UE shall report cells within active set or within virtual active set.
>>Maximum number of reported cells	MP		Integer (1..12)	
>Report cells within active and/or monitored set on used frequency or within virtual active and/or monitored set on non-used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..12)	

3GPP TSG-RAN WG2 Meeting #27
Orlando, USA, 18th – 22nd February 2002

Tdoc R2-020473

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1261** ⌘ **rev** **r1** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Corrections to Reporting Cell Status
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	February 21, 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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:	⌘	When UTRAN sets up an inter-RAT (e.g. GSM) measurement, it can include the IE "Reporting cell status" within the IE "Inter-RAT measurement reporting criteria" in the IE "Inter-RAT measurement". In the IE "Reporting cell status", the only choice for inter-RAT measurement is "Report cells within active set or within virtual active set or of the other RAT". With this choice selected, it is possible that the UE would report only cells within active set OR within virtual active set, but not from other RAT, which is not what UTRAN expected.
Summary of change:	⌘	In the semantics description of the choice "Report cells within active set or within virtual active set or of the other RAT" of the IE "Reporting cell status", a note is added to specify that if the choice is selected for inter-RAT measurement, the UE shall report only cells of the other RAT. The handling of the reporting cell status is clarified in procedural description for the case of inter-RAT measurement, intra-frequency, and inter-frequency measurement. Isolated impact analysis: The change has isolated impact on inter-RAT measurement reporting, intra-frequeny measurement reporting, and inter-frequency measurement reporting. It would not affect implementations behaving like indicated in the CR, yet it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	Ambiguities in how the IE "Reporting cell status" is used in inter-RAT measurement reporting, intra-frequency measurement reporting and inter-frequency measurement reporting may lead to unexpected UE behaviour.

Clauses affected:	⌘	8.6.7.9, 10.3.7.61
Other specs	⌘ ☐ Other core specifications	⌘ 25.331 v4.3.0, CR 1262

affected:	☐ 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.

8.6.7.9 Reporting Cell Status

If the IE "Reporting Cell Status" is received, the UE shall set the IE "Measured Results" in MEASUREMENT REPORT as follows. The UE shall:

- for intra-frequency measurement and inter-frequency measurement:
  - include the IE "Cell Measured Results" for cells (excluding cells of another RAT) that satisfy the condition (such as "Report cells within active set") specified in the IE "Reporting Cell Status", in descending order by the measurement quantity.
  - the maximum number of the IE "Cell Measured Results" to be included in the IE "Measured Results" is the number specified in the IE "Reporting Cell Status". /* editor's note – one level indented */
- for inter-RAT measurement:
  - include the measurement results for cells of other RAT (e.g., GSM) that satisfy the condition specified in the IE "Reporting Cell Status", in descending order by the measurement quantity.
  - the maximum number of the IE "Measured GSM Cells" to be included in the IE "Measured Results" is the number specified in the IE "Reporting Cell Status".

If the IE "Reporting Cell Status" is not received for intra-frequency, inter-frequency measurement, or inter-RAT measurement, the UE shall:

- for intra-frequency measurement and inter-frequency measurement:
  - exclude the IE "Ceell Mmeasured Rresults" for any cell in MEASUREMENT REPORT.
- for inter-RAT measurement:
  - exclude the IE "Measured GSM Cells" for any cell in MEASUREMENT REPORT.

/*editor's note – section skipped */

10.3.7.61 Reporting Cell Status

Indicates maximum allowed number of cells to report and whether active set cells and/or virtual active set cells and/or monitored set cells on and/or detected set cells used frequency and/or monitored set cells on non used frequency should/should not be included in the IE "Measured results".

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *reported cell*	MP			
>Report cells within active set				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report cells within monitored set cells on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report cells within active set and/or monitored set cells on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report cells within detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
>Report cells within monitored set and/or detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..6)	
>Report all active set cells + cells within monitored set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active set cells+6)	
>Report all active set cells + cells within detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active set cells+6)	
>Report all active set cells + cells within monitored set and/or detected set on used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active set cells+6)	
>Report cells within virtual active set				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Integer(1..6)	
>Report cells within monitored set on non-used frequency				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Integer(1..6)	
>Report cells within monitored and/or virtual active set on non-used frequency				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Integer(1..6)	
>Report all virtual active set cells + cells within monitored set on non-used frequency				This choice is not valid for intra-frequency or inter-RAT measurements
>>Maximum number of reported cells per reported non-used frequency	MP		Enumerated (virtual/active set cells+1, virtual/active set cells+2, …., virtual/active	

Information Element/Group name	Need	Multi	Type and reference	Semantics description
			set cells+6)	
>Report cells within active set or within virtual active set or of the other RAT				If this choice is selected for inter-RAT measurements, the UE shall report only cells of the other RAT. If this choice is selected for intra-frequency or inter-frequency measurements, the UE shall report cells within active set or within virtual active set.
>>Maximum number of reported cells	MP		Integer (1..12)	
>Report cells within active and/or monitored set on used frequency or within virtual active and/or monitored set on non-used frequency				This choice is not valid for inter-RAT measurements
>>Maximum number of reported cells	MP		Integer(1..12)	

3GPP TSG-RAN WG2 Meeting #27
Orlando, USA, 18th – 22nd February 2002

Tdoc R2-020472

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1260** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Corrections to Expiration Time Factor and Expiration Time formula for SIB 7 and 14
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	February 21, 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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:	⌘	Expiration Time formula for SIB 7 and SIB 14 (editorial correction): The expiration time is expressed in number of frames and the Expiration Time formula, Expiration time = MAX (320ms, SIB_REP * ExpirationTimeFactor) is dimensionally incorrect.
Summary of change:	⌘	The Expiration Time formula for SIB 7 and 14 is corrected to Expiration timer = MAX (32, SIB_REP * ExpirationTimeFactor) in Table 8.1.1 of 8.1.1.1.2. Isolated impact analysis: the CR has isolated impact on determination of Expiration Time for SIB 7 and 14. It would not affect implementations behaving like indicated in the CR, yet it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	UE may not be able to determine the correct Expiration Time for SIB 7 and 14.

Clauses affected:	⌘	8.1.1.1.2		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1259r1
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.

8.1.1.1.2 System information blocks

Table 8.1.1 specifies all system information blocks and their characteristics.

The *area scope column* in table 8.1.1 specifies the area where a system information block's value tag is valid. If the area scope is *cell*, the UE shall consider the system information block to be valid only in the cell in which it was read. If system information blocks have been previously stored for this cell, the UE shall check whether the value tag for the system information block in the entered cell is different compared to the stored value tag. If the area scope is *PLMN* or *Equivalent PLMN*, the UE shall check the value tag for the system information block when a new cell is selected. If the value tag for the system information block in the new cell is different compared to the value tag for the system information block stored in the UE, the UE shall re-read the system information block. If the area scope is *PLMN*, the UE shall consider the system information block to be valid only within the PLMN in which it was read. If the area scope is *Equivalent PLMN*, the UE shall consider the system information block to be valid within the PLMN in which it was received and all PLMNs which are indicated by higher layers to be equivalent.

For System information block types 15.2, 15.3 and 16, which may have multiple occurrences, each occurrence has its own independent value tag. The UE- shall re-read a particular occurrence if the value tag of this occurrence has changed compared to that stored in the UE.

The *UE mode/state column when block is valid* in Table 8.1.1 specifies in which UE mode or UE state the IEs in a system information block shall be regarded as valid by the UE. In other words, the indicated system information block becomes invalid upon change to a mode/state that is not included in this column. System Information Block Type 16 remains also valid upon transition to or from GSM/GPRS. In some cases, the states are inserted in brackets to indicate that the validity is dependent on the broadcast of the associated System Information Blocks by the network as explained in the relevant procedure subclause.

The *UE mode/state column when block is read* in Table 8.1.1 specifies in which UE mode or UE state the IEs in a system information block may be read by the UE. The UE shall have the necessary information prior to execution of any procedure requiring information to be obtained from the appropriate system information block. The requirements on the UE in terms of when to read the system information may therefore be derived from the procedure specifications that specify which IEs are required in the different UE modes/states in conjunction with the different performance requirements that are specified. System Information Block type 10 shall only be read by the UE while in CELL_DCH.

NOTE 1: There are a number of system information blocks that include the same IEs while the UE mode/state in which the information is valid differs. This approach is intended to allows the use of different IE values in different UE mode/states.

NOTE 2: System Information Block Type 16 is also obtained by a UE while in GSM/GPRS. The details of this are not within the scope of this specification.

The *Scheduling information* column in table 8.1.1 specifies the position and repetition period for the SIB.

The *modification of system information* column in table 8.1.1 specifies the update mechanisms applicable for a certain system information block. For system information blocks with a value tag, the UE shall update the information according to subclause 8.1.1.7.1 or 8.1.1.7.2. For system information blocks with an expiration timer, the UE shall, when the timer expires, perform an update of the information according to subclause 8.1.1.7.4.

Table 8.1.1: Specification of system information block characteristics

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
Master information block	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	SIB_POS = 0 SIB_REP = 8 (FDD) SIB_REP = 8, 16, 32 (TDD) SIB_OFF=2	Value tag	
Scheduling block 1	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information" in MIB	Value tag	

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
Scheduling block 2	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information" in MIB	Value tag	
System information block type 1	PLMN	Idle mode CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 2	Cell	URA_PCH	URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 3	Cell	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH)	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH)	Specified by the IE "Scheduling information"	Value tag	
System information block type 4	Cell	CELL_FACH, CELL_PCH, URA_PCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	If System information block type 4 is not broadcast in a cell, the connected mode UE shall apply information in System information block type 3 in connected mode.
System information block type 5	Cell	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only))	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only))	Specified by the IE "Scheduling information"	Value tag	
System information block type 6	Cell	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	Specified by the IE "Scheduling information"	Value tag	If system information block type 6 is not broadcast in a cell, the connected mode UE shall read System information block type 5. If some of the optional IEs are not included in System information block type 6, the UE shall read the corresponding IEs in System information block type 5 In TDD mode system information block 6 shall only be read in CELL_DCH if required for open loop power control as specified in subclause 8.5.7 and/or if shared transport channels are assigned to the UE. If in these cases system information block type 6 is not broadcast the UE shall read system information block type 5.

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
System information block type 7	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	Idle mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	Specified by the IE "Scheduling information"	Expiration timer = MAX(320 ms,SIB_REP * ExpirationTimeFactor)	In TDD mode system information block type 7 shall only be read in CELL_DCH if shared transport channels are assigned to the UE.
System information block type 8	Cell	CELL_FACH, CELL_PCH, URA_PCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 9	Cell	CELL_FACH, CELL_PCH, URA_PCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Expiration timer = SIB_REP	
System information block type 10	Cell	CELL_DCH	CELL_DCH	Specified by the IE "Scheduling information"	Expiration timer = SIB_REP	
System information block type 11	Cell	Idle mode (CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH)	Idle mode (CELL_FACH, CELL_PCH, URA_PCH)	Specified by the IE "Scheduling information"	Value tag	
System information block type 12	Cell	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	If system information block type 12 is not broadcast in a cell, the connected mode UE shall read System information block type 11. If some of the optional IEs are not included in System information block type 12, the UE shall read the corresponding IEs in System information block type 11.
System information block type 13	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.1	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.2	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.3	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.4	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
System information block type 14	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Specified by the IE "Scheduling information"	Expiration timer = MAX([~~320 ms~~], SIB_REP * ExpirationTimeFactor)	This system information block is used in TDD mode only. System information block type 14 shall only be read in CELL_DCH if required for open loop power control as specified in subclause 8.5.7.
System information block type 15	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 15.1	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 15.2	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	For this system information block there may be multiple occurrences
System information block type 15.3	PLMN	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	For this system information block there may be multiple occurrences
System information block type 15.4	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 15.5	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 16	Equivalent PLMN	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	For this system information block there may be multiple occurrences. This system information block is also valid while in GSM/GPRS.
System information block type 17	Cell	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Specified by the IE "Scheduling information"	Expiration timer = SIB_REP	This system information block is used in TDD mode only. System information block type 17 shall only be read if shared transport channels are assigned to the UE.
System Information Block type 18	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	

The UE shall acquire all system information blocks except system information block type 10 on BCH. System Information Block type 10 shall be acquired on the FACH and only by UEs with support for simultaneous reception of one SCCPCH and one DPCH. If System Information Block type 10 is not broadcast in a cell, the DRAC procedures do not apply in this cell. System Information Block type 10 is used in FDD mode only.

3GPP TSG-RAN WG2 Meeting #27
Orlando, USA, 18th – 22nd February 2002

Tdoc R2-020471

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1259** ⌘ **rev** **r1** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Corrections to Expiration Time Factor and Expiration Time formula for SIB 7 and 14
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	February 21, 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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: ⌘

~~1> Incorrect information in IE "Expiration Time Factor":~~

~~The range is erroneously set to Enumerated (2times, 4times, … , 256times), which is corrected to Integer (1..8) to align with ASN.1.~~

2> Expiration Time formula for SIB 7 and SIB 14 (editorial correction):

The expiration time is expressed in number of frames and the Expiration Time formula, Expiration time = MAX (320ms, SIB_REP * ExpirationTimeFactor) is dimensionally incorrect.

Summary of change: ⌘

~~1> The range is corrected to Integer (1..8) in 10.3.3.12.~~

2> The Expiration Time formula for SIB 7 and 14 is corrected to Expiration timer = MAX (32, SIB_REP * ExpirationTimeFactor) in Table 8.1.1 of 8.1.1.1.2.

Isolated impact analysis: the CR has isolated impact on determination of Expiration Time for SIB 7 and 14.

It would not affect implementations behaving like indicated in the CR, yet it would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved: ⌘ UE may not be able to determine the correct Expiration Time for SIB 7 and 14.

Clauses affected: ⌘ 8.1.1.1.2

Other specs affected: ⌘
☐ Other core specifications ⌘ 25.331 v4.3.0, CR 1260
☐ 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.

8.1.1.1.2 System information blocks

Table 8.1.1 specifies all system information blocks and their characteristics.

The *area scope column* in table 8.1.1 specifies the area where a system information block's value tag is valid. If the area scope is *cell*, the UE shall consider the system information block to be valid only in the cell in which it was read. If system information blocks have been previously stored for this cell, the UE shall check whether the value tag for the system information block in the entered cell is different compared to the stored value tag. If the area scope is *PLMN* or *Equivalent PLMN*, the UE shall check the value tag for the system information block when a new cell is selected. If the value tag for the system information block in the new cell is different compared to the value tag for the system information block stored in the UE, the UE shall re-read the system information block. If the area scope is *PLMN*, the UE shall consider the system information block to be valid only within the PLMN in which it was read. If the area scope is *Equivalent PLMN*, the UE shall consider the system information block to be valid within the PLMN in which it was received and all PLMNs which are indicated by higher layers to be equivalent.

For System information block types 15.2, 15.3 and 16, which may have multiple occurrences, each occurrence has its own independent value tag. The UE- shall re-read a particular occurrence if the value tag of this occurrence has changed compared to that stored in the UE.

The *UE mode/state column when block is valid* in Table 8.1.1 specifies in which UE mode or UE state the IEs in a system information block shall be regarded as valid by the UE. In other words, the indicated system information block becomes invalid upon change to a mode/state that is not included in this column. System Information Block Type 16 remains also valid upon transition to or from GSM/GPRS. In some cases, the states are inserted in brackets to indicate that the validity is dependent on the broadcast of the associated System Information Blocks by the network as explained in the relevant procedure subclause.

The *UE mode/state column when block is read* in Table 8.1.1 specifies in which UE mode or UE state the IEs in a system information block may be read by the UE. The UE shall have the necessary information prior to execution of any procedure requiring information to be obtained from the appropriate system information block. The requirements on the UE in terms of when to read the system information may therefore be derived from the procedure specifications that specify which IEs are required in the different UE modes/states in conjunction with the different performance requirements that are specified. System Information Block type 10 shall only be read by the UE while in CELL_DCH.

NOTE 1: There are a number of system information blocks that include the same IEs while the UE mode/state in which the information is valid differs. This approach is intended to allows the use of different IE values in different UE mode/states.

NOTE 2: System Information Block Type 16 is also obtained by a UE while in GSM/GPRS. The details of this are not within the scope of this specification.

The *Scheduling information* column in table 8.1.1 specifies the position and repetition period for the SIB.

The *modification of system information* column in table 8.1.1 specifies the update mechanisms applicable for a certain system information block. For system information blocks with a value tag, the UE shall update the information according to subclause 8.1.1.7.1 or 8.1.1.7.2. For system information blocks with an expiration timer, the UE shall, when the timer expires, perform an update of the information according to subclause 8.1.1.7.4.

Table 8.1.1: Specification of system information block characteristics

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
Master information block	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	SIB_POS = 0 SIB_REP = 8 (FDD) SIB_REP = 8, 16, 32 (TDD) SIB_OFF=2	Value tag	
Scheduling block 1	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information" in MIB	Value tag	

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
Scheduling block 2	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information" in MIB	Value tag	
System information block type 1	PLMN	Idle mode CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 2	Cell	URA_PCH	URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 3	Cell	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH)	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH)	Specified by the IE "Scheduling information"	Value tag	
System information block type 4	Cell	CELL_FACH, CELL_PCH, URA_PCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	If System information block type 4 is not broadcast in a cell, the connected mode UE shall apply information in System information block type 3 in connected mode.
System information block type 5	Cell	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only))	Idle mode, (CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only))	Specified by the IE "Scheduling information"	Value tag	
System information block type 6	Cell	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	Specified by the IE "Scheduling information"	Value tag	If system information block type 6 is not broadcast in a cell, the connected mode UE shall read System information block type 5. If some of the optional IEs are not included in System information block type 6, the UE shall read the corresponding IEs in System information block type 5 In TDD mode system information block 6 shall only be read in CELL_DCH if required for open loop power control as specified in subclause 8.5.7 and/or if shared transport channels are assigned to the UE. If in these cases system information block type 6 is not broadcast the UE shall read system information block type 5.

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
System information block type 7	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	Idle mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH (TDD only)	Specified by the IE "Scheduling information"	Expiration timer = MAX(320 ms,SIB_REP * ExpirationTimeFactor)	In TDD mode system information block type 7 shall only be read in CELL_DCH if shared transport channels are assigned to the UE.
System information block type 8	Cell	CELL_FACH, CELL_PCH, URA_PCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 9	Cell	CELL_FACH, CELL_PCH, URA_PCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Expiration timer = SIB_REP	
System information block type 10	Cell	CELL_DCH	CELL_DCH	Specified by the IE "Scheduling information"	Expiration timer = SIB_REP	
System information block type 11	Cell	Idle mode (CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH)	Idle mode (CELL_FACH, CELL_PCH, URA_PCH)	Specified by the IE "Scheduling information"	Value tag	
System information block type 12	Cell	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	If system information block type 12 is not broadcast in a cell, the connected mode UE shall read System information block type 11. If some of the optional IEs are not included in System information block type 12, the UE shall read the corresponding IEs in System information block type 11.
System information block type 13	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.1	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.2	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.3	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 13.4	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	

System information block	Area scope	UE mode/state when block is valid	UE mode/state when block is read	Scheduling information	Modification of system information	Additional comment
System information block type 14	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Specified by the IE "Scheduling information"	Expiration timer = MAX([~~320 ms~~], SIB_REP * ExpirationTimeFactor)	This system information block is used in TDD mode only. System information block type 14 shall only be read in CELL_DCH if required for open loop power control as specified in subclause 8.5.7.
System information block type 15	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 15.1	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 15.2	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	For this system information block there may be multiple occurrences
System information block type 15.3	PLMN	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	For this system information block there may be multiple occurrences
System information block type 15.4	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 15.5	Cell	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	
System information block type 16	Equivalent PLMN	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle Mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	For this system information block there may be multiple occurrences. This system information block is also valid while in GSM/GPRS.
System information block type 17	Cell	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Specified by the IE "Scheduling information"	Expiration timer = SIB_REP	This system information block is used in TDD mode only. System information block type 17 shall only be read if shared transport channels are assigned to the UE.
System Information Block type 18	Cell	Idle mode, CELL_FACH, CELL_PCH, URA_PCH, CELL_DCH	Idle mode, CELL_FACH, CELL_PCH, URA_PCH	Specified by the IE "Scheduling information"	Value tag	

The UE shall acquire all system information blocks except system information block type 10 on BCH. System Information Block type 10 shall be acquired on the FACH and only by UEs with support for simultaneous reception of one SCCPCH and one DPCH. If System Information Block type 10 is not broadcast in a cell, the DRAC procedures do not apply in this cell. System Information Block type 10 is used in FDD mode only.

3GPP TSG-RAN WG2 Meeting #27
Orlando, USA, 18th – 22nd February 2002

Tdoc R2-020469

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1258** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Corrections of inconsistency between procedural description, tabular and ASN.1
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	February 21, 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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:	⌘	1> Incorrect information in procedural description of IE "Added or Reconfigured DL TrCH information" and IE "DL Transport channel information common for all transport channels" (tabular description and ASN.1 are correct): The TDD choice "independent" is erroneously used in FDD. 2> Incorrect information in IE "Number of DPDCH" of IE "Uplink DPCH info": The range is erroneously set to Integer (2…maxDPDCH), which is corrected to Integer (1…maxDPDCH) to align with ASN.1. 3> Incorrect information in ASN.1 of IE "Transport channel capability" (tabular description is correct): The variable name turboDecodingSupport is erroneously used in the case of uplink.
Summary of change:	⌘	1> The choice "independent" is changed to "explicit" in 8.6.5.6 and 8.6.5.10 (for the case of FDD). Corresponding change is also made in 13.7. 2> The range is corrected to Integer (1…maxDPDCH) in 10.3.6.88. 3> The variable name is changed to turboEncodingSupport in 11.3. Isolated impact analysis: the CR has isolated impact on radio bearer configuration. It would not affect implementations behaving like indicated in the CR, yet it would affect implementations supporting the corrected functionality otherwise.
Consequences if not approved:	⌘	Inconsistency in the specification

Clauses affected:	⌘	8.6.5.6, 8.6.5.10, 10.3.6.88, 11.3, 13.7

Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1257r1
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.

8.6.5.6 Added or Reconfigured DL TrCH information

If the IE "Added or Reconfigured DL TrCH information" is included then for the transport channel identified by the IE "DL Transport Channel Identity" the UE shall:

- if the choice "DL parameters" is set to 'explicit~~independent~~':
  - perform the actions for the IE "Transport Format Set" as specified in subclause 8.6.5.1.
- if the choice "DL parameters" is set to 'same as uplink':
  - if the IE "UL Transport Channel Identity" indicates an existing or a new UL Transport Channel:
    - store as transport format for this transport channel the transport format associated with the transport channel identified by the IE "UL Transport Channel Identity".
  - else:
    - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "DCH quality target" is included:
  - perform the actions specified in subclause 8.6.5.4.
- if the IE "Transparent mode signalling info" is included:
  - consider the messages received on this transport channel to have the message type according to the value of the IE "Type of message";
  - if the choice "Transparent signalling mode" is set to "Mode 1":
    - consider the messages received on this transport channel affect all established DCHs.
  - if the choice "Transparent signalling mode" is set to "Mode 2":
    - consider the messages received on this transport channel affect the DCHs identified with the IE "UL controlled transport channels" in the IE "Controlled transport channels list";
    - if any of the DCHs identified with the IE "UL controlled transport channels" in the IE "Controlled transport channels list" does not exist:
  - set the variable INVALID_CONFIGURATION to TRUE.

/* editor's note – next section */

8.6.5.10 DL Transport channel information common for all transport channels

If the IE "DL Transport channel information common for all transport channels" is included the UE shall:

- if the IE "SCCPCH TFCS" is included:
  - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE choice "mode" is set to FDD:
  - if the choice "DL parameters" is set to 'explicit~~Independent~~':
    - if the IE "DL DCH TFCS" is included:
      - if the IE "SCCPCH TFCS" is included and the state the UE enters after handling the received information is other than CELL_DCH:
        - ignore the received IE "DL DCH TFCS".

NOTE: the IE "DL Transport channel information common for all transport channels" always includes a DL DCH TFCS configuration, either by including the IE "DL DCH TFCS " or by specifying that the TFCS is the same as in UL. If UTRAN does not require the reconfiguration of the concerned parameters, UTRAN may replace one TFC with the value that is already assigned for this IE.

- else:
  - perform actions as specified in subclause 8.6.5.2.

- if the IE choice "mode" is set to TDD:
  - if the IE "Individual DL CCTRCH information" is included:
    - for each DL TFCS identified by the IE "DL TFCS identity":
      - if the IE choice "DL parameters" is set to 'independent':
        - perform actions for the IE "DL TFCS" as specified in subclause 8.6.5.2.
      - if the IE choice "DL parameters" is set to 'same as UL':
        - if the IE "UL DCH TFCS identity" indicates an existing or a new UL TFCS:
          - store for that DL TFCS the TFCS identified by the IE "UL DCH TFCS identity".
        - else:
          - set the variable INVALID_CONFIGURATION to TRUE.

/* editor's note – next section */

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit~~Independent~~ <Only tf0 on TrCH1 is different and shown below>	Explicit~~Independent~~ <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	N/A	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
	RB2- RB3: 1 RB5: N/A	RB2- RB3: 1 RB5: N/A	RB2- RB3: 1 RB5: N/A	RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-	Complete	Complete	Complete	Complete

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
ConfigurationMode				
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	N/A	N/A	N/A	N/A
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	8			
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	N/A			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION 3.84 Mcps TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	16	17
Default configuration identity	8	9
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one
>>>>logicalChannelList	All	All
>>semiStaticTF-Information		
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo	TrCH1: Turbo

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
	TrCH2: Convolutional	TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL
>>transportFormatSet		
>>>dynamicTF-information		
>>>>tf0/ tf0,1		
>>>>rlcSize		
>>>>>sizeType		
>>>>numberOfTbSizeList		
>>>>logicalChannelList		
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)
>>>>>>>ctfc	2	2
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)
>>>>>>>ctfc	3	3

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)
>>>>>>>ctfc	4	4
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)
>>>>>>>ctfc	5	5
>>>>>>>gainFactorInformation	Signalled	Computed
>>>>>>>>βc (FDD only)	8	N/A
>>>>>>>>βd	15	N/A
>>>>>>>>referenceTFCId	N/A	0
>>>>>>TFCS 7		(TF1, TF1)
>>>>>>>ctfc		6
>>>>>>>gainFactorInformation		Computed
>>>>>>>>referenceTFCId		0
>>>>>>TFCS 8		(TF2, TF1)
>>>>>>>ctfc		7
>>>>>>>gainFactorInformation		Computed
>>>>>>>>referenceTFCId		0
>>>>>>TFCS 9		(TF3, TF1)
>>>>>>>ctfc		8
>>>>>>>gainFactorInformation		Computed
>>>>>>>>referenceTFCId		0
>>>>>>TFCS 10		(TF4, TF1)
>>>>>>>ctfc		9
>>>>>>>gainFactorInformation		Signalled
>>>>>>>>βc (FDD only)		8
>>>>>>>>βd		15
>>>>>>>>referenceTFCId		0
dl-CommonTransChInfo		
>tfcs-SignallingMode	Same as UL	Same as UL
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	1	1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	64	32
>>pilotBits	8	8
>>positionFixed	Flexible	Flexible
PhyCH INFORMATION 3.84 Mcps TDD		
UL-DPCH-InfoPredef		

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	-20	-20
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.44	0.48
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.44	0.48
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.72
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.72
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

/* editor's note – next section */

10.3.6.88 Uplink DPCH info

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Uplink DPCH power control info	OP		Uplink DPCH power control info 10.3.6.91	
CHOICE *mode*	MP			
>FDD				
>>Scrambling code type	MP		Enumerated(short, long)	
>>Scrambling code number	MP		Integer(0..16 777215)	
>>Number of DPDCH	MD		Integer(1~~2~~.. maxDPDCH)	Default value is 1. Number of DPDCH is 1 in HANDOVER TO UTRAN COMMAND
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256)	Minimum allowed SF of the channelisation code for data part
>>TFCI existence	MD		Boolean	TRUE means existence. Default value is "TRUE"
>>Number of FBI bits	OP		Integer (1, 2)	In bits.
>>Puncturing Limit	MP		Real(0.40 ..1 by step of 0.04)	
>TDD				
>>Uplink Timing Advance Control	OP		Uplink Timing Advance Control 10.3.6.96	
>>UL CCTrCH List	MP	1 to <maxCCTrCH>		
>>>TFCS ID	MD		Integer(1..8)	Default value is 1.
>>>UL target SIR	MP		Real (-11 .. 20 by step of 0.5dB)	In dB
>>>Time info	MP		Time info 10.3.6.83	
>>>Common timeslot info	MD		Common timeslot info 10.3.6.10	Default is the current Common timeslot info
>>>Uplink DPCH timeslots and codes	MD		Uplink Timeslots and Codes 10.3.6.94	Default is to use the old timeslots and codes.

/* editor's note – next section */

11.3 Information element definitions

```
-- **************************************************
--
--     USER EQUIPMENT INFORMATION ELEMENTS (10.3.3)
--
```

```
-- **************************************************


UL-TransChCapability ::=            SEQUENCE {
    maxNoBitsTransmitted                MaxNoBits,
    maxConvCodeBitsTransmitted          MaxNoBits,
    turboEnDecodingSupport              TurboSupport,
    maxSimultaneousTransChs             MaxSimultaneousTransChsUL,
    modeSpecificInfo                    CHOICE {
        fdd                                 NULL,
        tdd                                 SEQUENCE {
            maxSimultaneousCCTrCH-Count         MaxSimultaneousCCTrCH-Count
        }
    },
    maxTransmittedBlocks                MaxTransportBlocksUL,
    maxNumberOfTFC-InTFCS               MaxNumberOfTFC-InTFCS-UL,
    maxNumberOfTF                       MaxNumberOfTF
}
```

3GPP TSG-RAN WG2 Meeting #27
Orlando, USA, 18th – 22nd February 2002

Tdoc R2-020468

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1257** ⌘ **rev** **r1** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Corrections of inconsistency between procedural description, tabular and ASN.1
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	February 21, 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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: ⌘

1> Incorrect information in procedural description of IE “Added or Reconfigured DL TrCH information” and IE “DL Transport channel information common for all transport channels” (tabular description and ASN.1 are correct):

The TDD choice “independent” is erroneously used in FDD.

2> Incorrect information in IE “Number of DPDCH” of IE “Uplink DPCH info”:

The range is erroneously set to Integer (2…maxDPDCH), which is corrected to Integer (1…maxDPDCH) to align with ASN.1.

3> Incorrect information in ASN.1 of IE “Transport channel capability” (tabular description is correct):

The variable name turboDecodingSupport is erroneously used in the case of uplink.

Summary of change: ⌘

1> The choice “independent” is changed to “explicit” in 8.6.5.6 and 8.6.5.10 (for the case of FDD). Corresponding change is also made in 13.7.

2> The range is corrected to Integer (1…maxDPDCH) in 10.3.6.88.

3> The variable name is changed to turboEncodingSupport in 11.3.

Isolated impact analysis: the CR has isolated impact on radio bearer configuration.

It would not affect implementations behaving like indicated in the CR, yet it would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved: ⌘ Inconsistency in the specification

Clauses affected: ⌘ 8.6.5.6, 8.6.5.10, 10.3.6.88, 11.3, 13.7

Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v4.3.0, CR 1258
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.

8.6.5.6 Added or Reconfigured DL TrCH information

If the IE "Added or Reconfigured DL TrCH information" is included then for the transport channel identified by the IE "DL Transport Channel Identity" the UE shall:

- if the choice "DL parameters" is set to 'explicit~~independent~~':
  - perform the actions for the IE "Transport Format Set" as specified in subclause 8.6.5.1.
- if the choice "DL parameters" is set to 'same as uplink':
  - if the IE "UL Transport Channel Identity" indicates an existing or a new UL Transport Channel:
    - store as transport format for this transport channel the transport format associated with the transport channel identified by the IE "UL Transport Channel Identity".
  - else:
    - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE "DCH quality target" is included:
  - perform the actions specified in subclause 8.6.5.4.
- if the IE "Transparent mode signalling info" is included:
  - ignore the IE "Transparent mode signalling info".

/* editor's note – next section */

8.6.5.10 DL Transport channel information common for all transport channels

If the IE "DL Transport channel information common for all transport channels" is included the UE shall:

- if the IE "SCCPCH TFCS" is included:
  - set the variable INVALID_CONFIGURATION to TRUE.
- if the IE choice "mode" is set to FDD:
  - if the choice "DL parameters" is set to 'explicit~~Independent~~':
    - if the IE "DL DCH TFCS" is included:
      - if the IE "SCCPCH TFCS" is included and the state the UE enters after handling the received information is other than CELL_DCH:
        - ignore the received IE "DL DCH TFCS".

NOTE: the IE "DL Transport channel information common for all transport channels" always includes a DL DCH TFCS configuration, either by including the IE "DL DCH TFCS " or by specifying that the TFCS is the same as in UL. If UTRAN does not require the reconfiguration of the concerned parameters, UTRAN may replace one TFC with the value that is already assigned for this IE.

      - else:
        - perform actions as specified in subclause 8.6.5.2.
- if the IE choice "mode" is set to TDD:
  - if the IE "Individual DL CCTRCH information" is included:
    - for each DL TFCS identified by the IE "DL TFCS identity":

- if the IE choice "DL parameters" is set to 'independent':
  - perform actions for the IE "DL TFCS" as specified in subclause 8.6.5.2.
- if the IE choice "DL parameters" is set to 'same as UL':
  - if the IE "UL DCH TFCS identity" indicates an existing or a new UL TFCS:
    - store for that DL TFCS the TFCS identified by the IE "UL DCH TFCS identity".
  - else:
    - set the variable INVALID_CONFIGURATION to TRUE.

/* editor's note – next section */

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.

NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.

NOTE 3: For each default configuration, the value of both FDD and TDD parameters are specified. All parameters apply to both FDD and TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	**3.4 kbps signalling**	**13.6 kbps signalling**	**7.95 kbps speech + 3.4 kbps signalling**	**12.2 kbps speech + 3.4 kbps signalling**
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128	RB1: N/A RB2- RB3: 128 RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: One	TrCH1: One
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>>numberOfTransportBlocks			TrCH1: Zero	TrCH1: Zero
>>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information				
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
DL-AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	ExplicitIndependent <Only tf0 on TrCH1 is different and shown below>	ExplicitIndependent <Only tf0 on TrCH1 is different and shown below>
>>transportFormatSet			DedicatedTransChTFS	DedicatedTransChTFS
>>>dynamicTF-information				
>>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>>rlcSize			BitMode	bitMode
>>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>>logicalChannelList			All	All
>>ULTrCH-Id	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $5x10^{-2}$	TrCH1: $5x10^{-2}$	TrCH1: $7x10^{-3}$ TrCH2- TrCH3: Absent	TrCH1: $7x10^{-3}$ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Signalled	Signalled	Computed	Computed
>>>>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>>>>βd	15	15	N/A	N/A
>>>>>>>>referenceTFCId	N/A	N/A	0	0
>>>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>>>ctfc			5	11
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
>>>>>>>ctfc			6	12
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>βc (FDD only)			N/A	N/A
>>>>>>>>βd			N/A	N/A
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>>>ctfc			7	13
>>>>>>>gainFactorInformation			Computed	Computed
>>>>>>>>referenceTFCId			0	0
>>>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>>>ctfc			11	23
>>>>>>>gainFactorInformation			Signalled	Signalled
>>>>>>>>βc (FDD only)			11	11
>>>>>>>>βd			15	15
>>>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo				
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL-AddReconfTransChInfoList				
> Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 11, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF-Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180 TrCH2: 160	TrCH1: 185 TrCH2: 160	TrCH1: 170 TrCH2: 160	TrCH1: 165 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>Downlink transport channel type	dch	dch	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>>tf0/ tf0,1				
>>>>rlcSize				
>>>>>sizeType				
>>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget				
>>bler-QualityValue	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $2x10^{-3}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>>TFCS list				
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0	0	0
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1	1	1
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>>>ctfc	2	2	2	2
>>>>>>>gainFactorInformation	Computed	Computed	Computed	Computed
>>>>>>>>referenceTFCId	0	0	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>>>ctfc	3	3	3	3
>>>>>>>gainFactorInformation	Computed	Signalled	Signalled	Signalled
>>>>>>>>βc (FDD only)	N/A	8	8	11
>>>>>>>>βd	N/A	15	15	15
>>>>>>>>referenceTFCId	N/A	N/A	N/A	N/A
>>>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>>>ctfc	4			
>>>>>>>gainFactorInformation	Computed			
>>>>>>>>referenceTFCId	8			

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>>>ctfc	5			
>>>>>>>gainFactorInformation	Signalled			
>>>>>>>>βc (FDD only)	8			
>>>>>>>>βd	15			
>>>>>>>>referenceTFCId	N/A			
>>>>>>TFCS 7				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 8				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 9				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>referenceTFCId				
>>>>>>TFCS 10				
>>>>>>>ctfc				
>>>>>>>gainFactorInformation				
>>>>>>>>βc (FDD only)				
>>>>>>>>βd				
>>>>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-PowerControlInfo				
>>dpch-ConstantValue	-20	-20	-20	-20
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS-data + 3.4 kbps signalling	64kbps conv. CS-data + 3.4 kbps signalling	14.4 kbps streaming CS-data + 3.4 kbps signalling
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
Ref 34.108	16	17
Default configuration identity	8	9
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	Rlc-info	Rlc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC-DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE RB5: N/A	RB1: N/A RB2- RB3: TRUE RB5: N/A

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 RB5: N/A	RB1: N/A RB2- RB3: 128 RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 100	RB2- RB3: 100
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
rb-MappingInfo		
>UL-LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel
>>ul-TransportChannelType	Dch	Dch
>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac-LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL-logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-TransportChannelType	Dch	Dch
>>>>transportChannelIdentity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH		
UL-AddReconfTransChInfoList		
>Uplink transport channel type	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChTFS	DedicatedTransChTFS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)
>>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one
>>>>logicalChannelList	All	All
>>semiStaticTF-Information		
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>>codingRate	TrCH1: N/A TrCH2: Third	TrCH1: N/A TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-AddReconfTransChInfoList		
>Downlink transport channel type	dch	dch
>dl-TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>tfs-SignallingMode	SameAsUL	SameAsUL
>>transportFormatSet		
>>>dynamicTF-information		
>>>>tf0/ tf0,1		
>>>>rlcSize		
>>>>>sizeType		
>>>>numberOfTbSizeList		
>>>>logicalChannelList		
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>dch-QualityTarget		
>>bler-QualityValue	TrCH1: $1x10^{-2}$ TrCH2: Absent	TrCH1: $1x10^{-2}$ TrCH2: Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS-ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit
>>>>TFCS representation	Addition	Addition
>>>>>TFCS list		
>>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)
>>>>>>>ctfc	0	0
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)
>>>>>>>ctfc	1	1
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)
>>>>>>>ctfc	2	2
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)
>>>>>>>ctfc	3	3
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>βc (FDD only)	N/A	N/A
>>>>>>>>βd	N/A	N/A
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)
>>>>>>>ctfc	4	4
>>>>>>>gainFactorInformation	Computed	Computed
>>>>>>>>referenceTFCId	0	0
>>>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)
>>>>>>>ctfc	5	5
>>>>>>>gainFactorInformation	Signalled	Computed
>>>>>>>>βc (FDD only)	8	N/A
>>>>>>>>βd	15	N/A
>>>>>>>>referenceTFCId	N/A	0
>>>>>>TFCS 7		(TF1, TF1)
>>>>>>>ctfc		6
>>>>>>>gainFactorInformation		Computed
>>>>>>>>referenceTFCId		0
>>>>>>TFCS 8		(TF2, TF1)
>>>>>>>ctfc		7
>>>>>>>gainFactorInformation		Computed
>>>>>>>>referenceTFCId		0
>>>>>>TFCS 9		(TF3, TF1)
>>>>>>>ctfc		8
>>>>>>>gainFactorInformation		Computed
>>>>>>>>referenceTFCId		0
>>>>>>TFCS 10		(TF4, TF1)
>>>>>>>ctfc		9
>>>>>>>gainFactorInformation		Signalled
>>>>>>>>βc (FDD only)		8
>>>>>>>>βd		15
>>>>>>>>referenceTFCId		0
dl-CommonTransChInfo		
>tfcs-SignallingMode	Same as UL	Same as UL
PhyCH INFORMATION FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	1	1

Configuration	28.8 kbps streaming CS-data + 3.4 kbps signalling	57.6 kbps streaming CS-data + 3.4 kbps signalling
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>spreadingFactor	64	32
>>pilotBits	8	8
>>positionFixed	Flexible	Flexible
PhyCH INFORMATION TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-PowerControlInfo		
>>dpch-ConstantValue	-20	-20
>commonTimeslotInfo		
>>secondInterleavingMode	frameRelated	frameRelated
>>tfci-Coding	16	16
>>puncturingLimit	0.44	0.48
>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1
DL-CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMode	frameRelated	frameRelated
>>>tfci-Coding	16	16
>>>puncturingLimit	0.44	0.48
>>>repetitionPeriodAndLength	repetitionPeriod1	repetitionPeriod1

/* editor's note – next section */

10.3.6.88 Uplink DPCH info

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Uplink DPCH power control info	OP		Uplink DPCH power control info 10.3.6.91	
CHOICE *mode*	MP			
>FDD				
>>Scrambling code type	MP		Enumerated(short, long)	
>>Scrambling code number	MP		Integer(0..16 777215)	
>>Number of DPDCH	MD		Integer(1~~2~~.. maxDPDCH)	Default value is 1. Number of DPDCH is 1 in HANDOVER TO UTRAN COMMAND
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256)	Minimum allowed SF of the channelisation code for data part
>>TFCI existence	MD		Boolean	TRUE means existence. Default value is "TRUE"
>>Number of FBI bits	OP		Integer (1, 2)	In bits.
>>Puncturing Limit	MP		Real(0.40 ..1 by step of 0.04)	
>TDD				
>>Uplink Timing Advance Control	OP		Uplink Timing Advance Control 10.3.6.96	
>>UL CCTrCH List	MP	1 to <maxCCTrCH>		
>>>TFCS ID	MD		Integer(1..8)	Default value is 1.
>>>UL target SIR	MP		Real (-11 .. 20 by step of 0.5dB)	In dB
>>>Time info	MP		Time info 10.3.6.83	
>>>Common timeslot info	MD		Common timeslot info 10.3.6.10	Default is the current Common timeslot info
>>>Uplink DPCH timeslots and codes	MD		Uplink Timeslots and Codes 10.3.6.94	Default is to use the old timeslots and codes.

/* editor's note – next section */

11.3 Information element definitions

-- **********

```
--
--     USER EQUIPMENT INFORMATION ELEMENTS (10.3.3)
--
-- **********************************************


UL-TransChCapability ::=            SEQUENCE {
    maxNoBitsTransmitted                MaxNoBits,
    maxConvCodeBitsTransmitted          MaxNoBits,
    turboEnDecodingSupport              TurboSupport,
    maxSimultaneousTransChs             MaxSimultaneousTransChsUL,
    modeSpecificInfo                    CHOICE {
        fdd                                 NULL,
        tdd                                 SEQUENCE {
            maxSimultaneousCCTrCH-Count         MaxSimultaneousCCTrCH-Count
        }
    },
    maxTransmittedBlocks                MaxTransportBlocksUL,
    maxNumberOfTFC-InTFCS               MaxNumberOfTFC-InTFCS-UL,
    maxNumberOfTF                       MaxNumberOfTF
}
```

3GPP TSG-RAN WG2 Meeting #27 ***R2-020467***
Orlando, Florida, USA, 18-22 February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1253** ⌘ **rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE **X** Radio Access Network **X** Core Network ☐

Title:	⌘	Existence of TFCI bits
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	12 Feb 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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: ⌘ In 25211-390, section 5.3.2, table 11 and section 5.3.3.4, table 18, there is a note:

"* If TFCI bits are not used, then DTX shall be used in TFCI field."

However, 25.331 specifies whether the TFCI bits exist and is unclear on whether DTX shall be used in TFCI field.

Summary of change: ⌘ A clarification is added for the IE "TFCI existence" in the tabular format.

Impact analysis:
Impacted functionality: DTX
- Correction to a function where the specification was :
  - Procedural text or rules were missing.

Consequences if not approved: ⌘ Unclear specification.

Clauses affected: ⌘ 10.3.6.18, 10.3.6.20, 10.3.6.71

Other specs affected: ⌘
- ☐ Other core specifications ⌘ 25.331 v3.9.0, CR 1252r1
- ☐ 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.

10.3.6.18 Downlink DPCH info common for all RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Timing Indication	MP		Enumerated(Initialise, Maintain)	NOTE
CFN-targetSFN frame offset	CV-*TimInd*		Integer(0..255)	In frame
Downlink DPCH power control information	OP		Downlink DPCH power control information 10.3.6.23	
CHOICE *mode*	MP			
>FDD				
>>Power offset $P_{Pilot-DPDCH}$	MP		Integer(0..24)	Power offset equals P_{Pilot} - P_{DPDCH}, range 0..6 dB, in steps of 0.25 dB
>>Downlink rate matching restriction information	OP		Downlink rate matching restriction information 10.3.6.31	If this IE is set to "absent", no Transport CH is restricted in TFI.
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	
>>Fixed or Flexible Position	MP		Enumerated (Fixed, Flexible)	
>>TFCI existence	MP		Boolean	TRUE indicates that TFCI <u>is used. This IE may be set to FALSE when spreading factor is less than or equal to 64. FALSE indicates that TFCI is not used and therefore DTX shall be used in the TFCI field.</u>~~exists~~
>>CHOICE *SF*	MP			
>>>SF = 256				
>>>>Number of bits for Pilot bits	MP		Integer (2,4,8)	In bits
>>>SF = 128				
>>>>Number of bits for Pilot bits	MP		Integer(4,8)	In bits
>>>Otherwise				(no data). In ASN.1 choice "Otherwise" is not explicitly available as all values are available, it is implied by the use of any value other than 128 or 256.
>TDD				(no data)

CHOICE *SF*	**Condition under which the given *SF* is chosen**
SF=128	"Spreading factor" is set to 128
SF=256	"Spreading factor" is set to 256
Otherwise	"Spreading factor" is set to a value distinct from 128 and 256

Condition	Explanation
TimInd	This IE is optional if the IE "Timing Indication" is set to "Initialise". Otherwise it is not needed.

NOTE: Within the HANDOVER TO UTRAN COMMAND message, only value "initialise" is applicable.

10.3.6.20 Downlink DPCH info common for all RL Pre

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *mode*	MP			
>FDD				
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512-Andpilot with "number of its for pilot bits" in ASN.1
>>Fixed or Flexible Position	MP		Enumerated (Fixed, Flexible)	
>>TFCI existence	MP		Boolean	TRUE indicates that TFCI is used. This IE may be set to FALSE when spreading factor is less than or equal to 64. FALSE indicates that TFCI is not used and therefore DTX shall be used in the TFCI field.~~exists~~
>>CHOICE *SF*	MP			
>>>SF = 256				
>>>>Number of bits for Pilot bits	MP		Integer (2,4,8)	In bits
>>>SF = 128				
>>>>Number of bits for Pilot bits	MP		Integer(4,8)	In bits
>>>Otherwise				(no data)
>TDD				
>>Common timeslot info	MP		Common Timeslot Info 10.3.6.10	

CHOICE *SF*	**Condition under which the given *SF* is chosen**
SF=128	"Spreading factor" is set to 128
SF=256	"Spreading factor" is set to 256
Otherwise	"Spreading factor" is set to a value distinct from 128 and 256

10.3.6.71 Secondary CCPCH info

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *mode*	MP			
>FDD				
>>Secondary scrambling code	OP		Secondary scrambling code 10.3.6.74	May only be sent for SCCPCH channels not carrying the PCH.
>>STTD indicator	MD		STTD Indicator 10.3.6.78	Default value is "TRUE"
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256)	
>>Code number	MP		Integer(0..Spreading factor - 1)	
>>Pilot symbol existence	MD		Boolean	TRUE means the existence. Default value is "TRUE"
>>TFCI existence	MD		Boolean	TRUE indicates that TFCI is used. This IE may be set to FALSE when spreading factor is less than or equal to 64. FALSE indicates that TFCI is not used and therefore DTX shall be used in the TFCI field.~~TRUE means the existence.~~ Default value is "TRUE"
>>Fixed or Flexible Position	MD		Enumerated (Fixed, Flexible)	Default value is "Flexible"
>>Timing Offset	MD		Integer(0..38144 by step of 256)	Chip Delay of the Secondary CCPCH relative to the Primary CCPCH. Default value is 0.
>TDD				
>>Offset	MP		Integer (0...Repetition Period -1)	SFN modulo Repetition period = offset. Repetition period is the one indicated in the accompanying Common timeslot info IE
>>Common timeslot info	MP		Common timeslot info 10.3.6.10	
>>Individual timeslot info	MP		Individual timeslot info 10.3.6.37	
>>Code List	MP	1 to 16		
>>>Channelisation Code	MP		Enumerated((16/1)..(16/16))	

3GPP TSG-RAN WG2 Meeting #27 ***R2-020466***
Orlando, Florida, USA, 18-22 February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1252** ⌘ **rev** **r1** ⌘ Current version: **3.9.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Existence of TFCI bits
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	12 Feb 2002
Category:	⌘	**F**
Release:	⌘	R99

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.

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: ⌘ In 25211-390, section 5.3.2, table 11 and section 5.3.3.4, table 18, there is a note:

"* If TFCI bits are not used, then DTX shall be used in TFCI field."

However, 25.331 specifies whether the TFCI bits exist and is unclear on whether DTX shall be used in TFCI field.

Summary of change: ⌘ Rev1: A clarification is added for the IE "TFCI existence" in the tabular format.

Impact analysis:
Impacted functionality: DTX
- Correction to a function where the specification was :
  - Procedural text or rules were missing.

Consequences if not approved: ⌘ Unclear specification.

Clauses affected: ⌘ 10.3.6.18, 10.3.6.20, 10.3.6.71

Other specs affected: ⌘
☐ Other core specifications ⌘ 25.331 v4.3.0, CR 1252
☐ 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.

10.3.6.18 Downlink DPCH info common for all RL

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Timing Indication	MP		Enumerated(Initialise, Maintain)	NOTE
CFN-targetSFN frame offset	CV-*TimInd*		Integer(0..255)	In frame
Downlink DPCH power control information	OP		Downlink DPCH power control information 10.3.6.23	
CHOICE *mode*	MP			
>FDD				
>>Power offset $P_{Pilot-DPDCH}$	MP		Integer(0..24)	Power offset equals P_{Pilot} - P_{DPDCH}, range 0..6 dB, in steps of 0.25 dB
>>Downlink rate matching restriction information	OP		Downlink rate matching restriction information 10.3.6.31	If this IE is set to "absent", no Transport CH is restricted in TFI.
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	
>>Fixed or Flexible Position	MP		Enumerated (Fixed, Flexible)	
>>TFCI existence	MP		Boolean	TRUE indicates that TFCI <u>is used.</u>~~exists~~ <u>This IE may be set to FALSE when spreading factor is less than or equal to 64. FALSE indicates that TFCI is not used and therefore DTX shall be used in the TFCI field.</u>
>>CHOICE *SF*	MP			
>>>SF = 256				
>>>>Number of bits for Pilot bits	MP		Integer (2,4,8)	In bits
>>>SF = 128				
>>>>Number of bits for Pilot bits	MP		Integer(4,8)	In bits
>>>Otherwise				(no data). In ASN.1 choice "Otherwise" is not explicitly available as all values are available, it is implied by the use of any value other than 128 or 256.
>TDD				(no data)

CHOICE *SF*	**Condition under which the given *SF* is chosen**
SF=128	"Spreading factor" is set to 128
SF=256	"Spreading factor" is set to 256
Otherwise	"Spreading factor" is set to a value distinct from 128 and 256

Condition	**Explanation**
TimInd	This IE is optional if the IE "Timing Indication" is set to "Initialise". Otherwise it is not needed.

NOTE: Within the HANDOVER TO UTRAN COMMAND message, only value "initialise" is applicable.

10.3.6.20 Downlink DPCH info common for all RL Pre

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *mode*	MP			
>FDD				
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256, 512)	Defined in CHOICE SF512-Andpilot with "number of its for pilot bits" in ASN.1
>>Fixed or Flexible Position	MP		Enumerated (Fixed, Flexible)	
>>TFCI existence	MP		Boolean	TRUE indicates that TFCI is used. This IE may be set to FALSE when spreading factor is less than or equal to 64. FALSE indicates that TFCI is not used and therefore DTX shall be used in the TFCI field.~~exists~~
>>CHOICE *SF*	MP			
>>>SF = 256				
>>>>Number of bits for Pilot bits	MP		Integer (2,4,8)	In bits
>>>SF = 128				
>>>>Number of bits for Pilot bits	MP		Integer(4,8)	In bits
>>>Otherwise				(no data)
>TDD				
>>Common timeslot info	MP		Common Timeslot Info 10.3.6.10	

CHOICE *SF*	**Condition under which the given *SF* is chosen**
SF=128	"Spreading factor" is set to 128
SF=256	"Spreading factor" is set to 256
Otherwise	"Spreading factor" is set to a value distinct from 128 and 256

10.3.6.71 Secondary CCPCH info

Information Element/Group name	Need	Multi	Type and reference	Semantics description
CHOICE *mode*	MP			
>FDD				
>>Secondary scrambling code	OP		Secondary scrambling code 10.3.6.74	May only be sent for SCCPCH channels not carrying the PCH.
>>STTD indicator	MD		STTD Indicator 10.3.6.78	Default value is "TRUE"
>>Spreading factor	MP		Integer(4, 8, 16, 32, 64, 128, 256)	
>>Code number	MP		Integer(0..Spreading factor - 1)	
>>Pilot symbol existence	MD		Boolean	TRUE means the existence. Default value is "TRUE"
>>TFCI existence	MD		Boolean	TRUE indicates that TFCI is used. This IE may be set to FALSE when spreading factor is less than or equal to 64. FALSE indicates that TFCI is not used and therefore DTX shall be used in the TFCI field.~~TRUE means the existence.~~ Default value is "TRUE"
>>Fixed or Flexible Position	MD		Enumerated (Fixed, Flexible)	Default value is "Flexible"
>>Timing Offset	MD		Integer(0..38144 by step of 256)	Chip Delay of the Secondary CCPCH relative to the Primary CCPCH. Default value is 0.
>TDD				
>>Offset	MP		Integer (0...Repetition Period -1)	SFN modulo Repetition period = offset. Repetition period is the one indicated in the accompanying Common timeslot info IE
>>Common timeslot info	MP		Common timeslot info 10.3.6.10	
>>Individual timeslot info	MP		Individual timeslot info 10.3.6.37	
>>Code List	MP	1 to 16		
>>>Channelisation Code	MP		Enumerated((16/1)..(16/16))	

3GPP TSG-RAN2 Meeting #27 ***Tdoc R2-020465***
Orlando, USA, 18th – 22nd February 2002

CR-Form-v5

CHANGE REQUEST

⌘ **25.331** **CR** **1251** ⌘**rev** **-** ⌘ Current version: **4.3.0** ⌘

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

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Measurement Corrections
Source:	⌘	TSG-RAN WG2
Work item code:	⌘	TEI
Date:	⌘	18th Feb. 2002
Category:	⌘	**A**
Release:	⌘	REL-4

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.

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 variable TRIGGERED_1C_EVENT holds the primary CPICH info of non-active cells which have triggered event 1C but it does not contain the information for which active set cell the conditions were fulfilled.
In contradiction to this, the variable M_{InAS} is currently defined as the measurement result of *any* active set cell, which would imply that the UE should evaluate the trigger condition for each active set cell individually.

This contradiction leads to an unstable reporting behaviour when a non-active cell is better than one, but worse than another active set cell. For this non-active cell the criteria for entering and leaving the trigger conditions would be fulfilled simultaneously.

It is proposed to change the definition of M_{InAS} in such a way that only the weakest active set cell is used in the evaluation.

Isolated Impact Analysis:
Corrected functionality is the trigger condition for intra-frequency reporting event 1C. The change would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Summary of change: ⌘

It is clarified that the variable M_{InAS} is the measurement result of the active set cell with the highest pathloss value or the lowest Ec/No or RSCP value, depending on the configured measurement quantity.

The example given in the description of event 1C is corrected to show the behaviour as it is specified in the text.

Consequences if not approved: ⌘

Unpredictable reporting behaviour for intra-frequency reporting event 1C.

Clauses affected: ⌘ 14.1.2.3

Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	25.331 v3.9.0, CR 1250
Other comments:	⌘	The release 99 CR is in Tdoc R2-020274		

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.

14.1.2.3 Reporting event 1C: A non-active primary CPICH becomes better than an active primary CPICH

When event 1C is configured in the UE, the UE shall:

- if "Measurement quantity" is "pathloss" and Equation 1 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 2 below is fulfilled for one or more primary CPICHs, for each of these primary CPICHs:
  - if the equations have been fulfilled during the time "Time to trigger", and if the primary CPICH that is better is not included in the active set but the other primary CPICH is any of the primary CPICHs included in the active set, and if that primary CPICH is not included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:
    - include that primary CPICH in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT.
- if the value of "Replacement activation threshold" for this event is less than or equal to the current number of cells in the active set or equal to 0 and if any primary CPICHs are stored in the "cells recently triggered" in the variable TRIGGERED_1C_EVENT:
  - if "Reporting interval" for this event is not equal to 0:
    - if the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT is set to FALSE:
      - start a timer for with the value of "Reporting interval" for this event and set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to TRUE.
    - set "sent reports" for that primary CPICH in the variable TRIGGERED_1C_EVENT to 1.
  - send a measurement report with IEs set as below:
    - set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and
    - include in "cell measurement event results" all entries of the "cells recently triggered" in the variable TRIGGERED_1C_EVENT not in the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one;
    - set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2.
  - move all entries from "cells recently triggered" to "cells triggered" in the variable TRIGGERED_1C_EVENT.
- if the timer for the periodical reporting has expired:
  - if any primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT, and not included in the current active set:
    - if "Reporting interval" for this event is not equal to 0, and if "Amount of reporting" is greater than "sent reports" stored for that primary CPICH, in "cells triggered" in the variable TRIGGERED_1C_EVENT:
      - increment the stored counter "sent reports" for all CPICH in "cell triggered" in variable TRIGGERED_1C_EVENT;
      - start a timer with the value of "Reporting interval" for this event;
      - send a measurement report with IEs set as below:
        - set in "intra-frequency measurement event results": "Intrafrequency event identity" to "1c"; and

- include in "cell measurement event results" all entries of the variable TRIGGERED_1C_EVENT with value of IE "sent report" smaller than value of "Amount of reporting" and that are not part of the active set as well as the "primary CPICH info" of all the primary CPICHs in the active set for which the measured value is worse (i.e. greater for pathloss and less for the other measurement quantities) than the one of the entry in "cell recently triggered" that has the best measured value, ordering the "primary CPICH info" according to their measured value beginning with the best cell to the worst one;
- set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2.

- if "sent reports" in variable TRIGGERED_1C_EVENT is greater than "Amount of reporting" for all entries:
  - set the IE "Periodical Reporting running" in the variable TRIGGERED_1C_EVENT to FALSE and disable the timer for the periodical reporting.

- if "Measurement quantity" is "pathloss" and Equation 3 below is fulfilled for a primary CPICH, or if "Measurement quantity" is "CPICH Ec/N0" or "CPICH RSCP", and Equation 4 below is fulfilled for a primary CPICH:
  - if that primary CPICH is included in the "cells triggered" in the variable TRIGGERED_1C_EVENT:
    - remove the entry of that primary CPICH from "cells triggered" in the variable TRIGGERED_1C_EVENT.
    - if no entry in the variable TRIGGERED_1C_EVENT has a value of "sent reports" smaller than "Amount of reporting":
      - stop the reporting interval timer;
      - set the IE "Periodical reporting running" in the variable TRIGGERED_1C_EVENT to FALSE.

Equation 1 (Triggering condition for pathloss)

$$M_{New} \leq M_{InAS} - H_{1c}/2,$$

Equation 2 (Triggering condition for all the other measurement quantities)

$$M_{New} \geq M_{InAS} + H_{1c}/2,$$

Equation 3 (Leaving triggering condition for pathloss)

$$M_{New} > M_{InAS} + H_{1c}/2,$$

Equation 4 (Leaving triggering condition for all the other measurement quantities)

$$M_{New} < M_{InAS} - H_{1c}/2,$$

The variables in the formula are defined as follows:

M_{New} is the measurement result of the cell not included in the active set.

~~M_{InAS} is the measurement result of a cell in the active set~~.

For pathloss:

M_{InAS} is the measurement result of the cell in the active set with the highest measurement result

For other measurement quantities:

M_{InAS} is the measurement result of the cell in the active set with the lowest measurement result

H_{1c} is the hysteresis parameter for the event 1c.

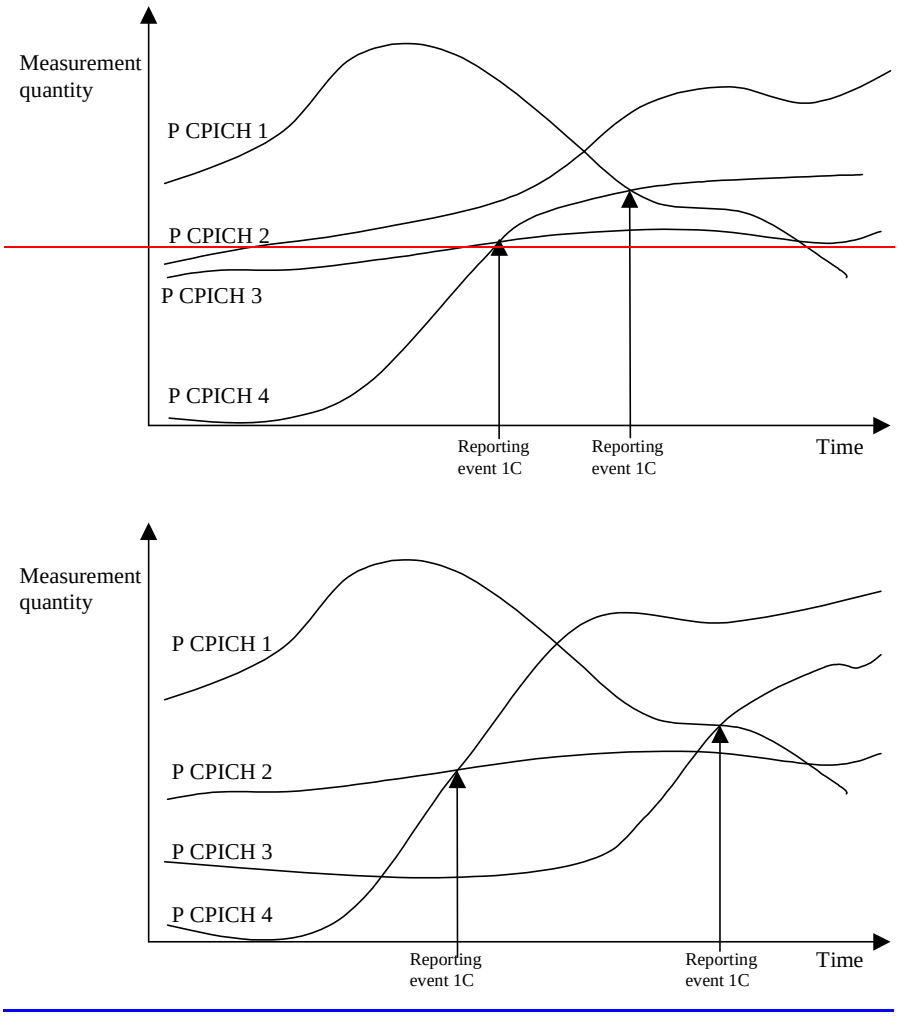

Figure 14.1.2.3-1: A primary CPICH that is not included in the active set becomes better than a primary CPICH that is in the active set

In this example the cells belonging to primary CPICH 1~~,~~ and 2 ~~and 3~~ are ~~supposed to be~~ in the active set, but the cells transmitting primary CPICH 3 and CPICH 4 is not (yet) in the active set.

The first measurement report is sent when primary CPICH 4 becomes better than primary CPICH 2. The "cell measurement event result" of the measurement report contains the information of primary CPICH 4 and CPICH 2.

Assuming that the active set has been updated after the first measurement report (active set is now primary CPICH 1 and primary CPICH 4), the second report is sent when primary CPICH 3 becomes better than primary CPICH 1. The "cell measurement event result" of the second measurement report contains the information of primary CPICH 3 and primary CPICH 1.