

TSG-RAN Working Group 1 meeting #11
San Diego, USA
February 29 – March 3, 2000

TSGR1#11(00)0258

Agenda item:

Source: Nokia

Title: CR 25.212-053: Allowed CCTrCH combinations on the downlink

Document for: Decision

Summary:

There is still one item marked as FFS in TS 25.212 V3.1.0 that needs to be tackled for Release-99. "The allowed combination of CCTrCHs of dedicated and common type are FFS" (chapter 4.2.14.1.2). This issue is clearly one part of the UE radio access capabilities (TR 25.926). A reference to 25.926 is proposed to be added and the FFS should naturally be removed. Similar type of reference to "UE capability class" has already been used several times in 25.212 (chapters 4.2.13.1, 4.2.13.2, 4.2.13.3, 4.2.13.4, 4.2.13.5 and 4.2.13.7). In order to be consistent with RAN WG2 (TR 25.302 V3.3.0) maximum one FACH and/or one DSCH is proposed for common type CCTrCH.

CHANGE REQUEST

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

25.212 CR 053

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG-RAN #7**
list expected approval meeting # here ↑

For approval for information

strategic
non-strategic (for SMG use only)

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

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

(U)SIM

ME

UTRAN / Radio

Core Network

Source: **Nokia**

Date: **23-02-2000**

Subject: **Allowed CCTrCH combinations on the downlink**

Work item:

Category:

(only one category shall be marked with an X)

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

Release:

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

Reason for change:

The allowed combination of CCTrCHs of dedicated and common type are still FFS.

Clauses affected: **4.2.14.1.2**

Other specs affected:

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

Other comments:



help.doc

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

4.2.14 Multiplexing of different transport channels into one CCTrCH, and mapping of one CCTrCH onto physical channels

The following rules shall apply to the different transport channels which are part of the same CCTrCH:

- 1) Transport channels multiplexed into one CCTrCh shall have co-ordinated timings. When the TFCS of a CCTrCH is changed because a transport channel i is added to the CCTrCH or reconfigured within the CCTrCH, the TTI of transport channel i may only start in radio frames with CFN fulfilling the relation

$$CFN_i \bmod F_{\max} = 0,$$

where F_{\max} denotes the maximum number of radio frames within the transmission time intervals of all transport channels which are multiplexed into the same CCTrCH, including transport channel i which is added or reconfigured, and CFN_i denotes the connection frame number of the first radio frame within the transmission time interval of transport channel i .

After addition or reconfiguration of a transport channel i within a CCTrCH, the TTI of transport channel i may only start in radio frames with CFN fulfilling the relation

$$CFN_i \bmod F_i = 0.$$

- 2) Only transport channels with the same active set can be mapped onto the same CCTrCH.
- 3) Different CCTrCHs cannot be mapped onto the same PhCH.
- 4) One CCTrCH shall be mapped onto one or several PhCHs. These physical channels shall all have the same SF.
- 5) Dedicated Transport channels and common transport channels cannot be multiplexed into the same CCTrCH
- 6) For the common transport channels, only the FACH and PCH may belong to the same CCTrCH

There are hence two types of CCTrCH

- 1) CCTrCH of dedicated type, corresponding to the result of coding and multiplexing of one or several DCHs.
- 2) CCTrCH of common type, corresponding to the result of the coding and multiplexing of a common channel, RACH in the uplink, DSCH, BCH, or FACH/PCH for the downlink.

4.2.14.1 Allowed CCTrCH combinations for one UE

4.2.14.1.1 Allowed CCTrCH combinations on the uplink

A maximum of one CCTrCH is allowed for one UE on the uplink. It can be either

- 1) one CCTrCH of dedicated type
- 2) one CCTrCH of common type

4.2.14.1.2 Allowed CCTrCH combinations on the downlink

The following CCTrCH combinations for one UE are allowed :

x CCTrCH of dedicated type + y CCTrCH of common type

The allowed combination of CCTrCHs of dedicated and common type are [FFS given from UE radio access capabilities](#). [For CCTrCH of common type there can be at maximum one FACH and/or one DSCH.](#)

NOTE 1: There is only one DPCCH in the uplink, hence one TPC bits flow on the uplink to control possibly the different DPDCHs on the downlink, part of the same or several CCTrCHs.

NOTE 2: There is only one DPCCH in the downlink, even with multiple CCTrCHs. With multiple CCTrCHs, the DPCCH is transmitted on one of the physical channels of that CCTrCH which has the smallest SF among the multiple CCTrCHs. Thus there is only one TPC command flow and only one TFCI word in downlink even with multiple CCTrCHs.