TSG-RAN Working Group 1 meeting #11
Feb. 29th – Mar. 3rd 2000, San Diego, USA

TSGR1#11(00)0416

Agenda Item : AH14

Source : LGIC, GBT, Samsung, Lucent

Title : CRs to 25.213 and 25.214 for channelization code allocation method for PCPCH message part

Document for : Approval

These CRs are related to a channelization code allocation method for PCPCH message part. In the current CPCH scheme, each PCPCH channel is mapped to a unique scrambling code, and also mapped to a unique channelization code. Since each PCPCH channel is mapped to a unique scrambling code, each PCPCH channel being mapped to a unique channelization code is redundant and increases hardware complexities. Therefore, it is proposed to use a common channelization code allocation method for all the PCPCH channels. To further reduce the hardware complexities, it is also proposed to use the current DPCH channelization code allocation method to that of PCPCH message part. With these CRs, each PCPCH channel can, at least physically, support all the possible data rates (SF=4~256), and this will improve the flexibility. These CRs should be applied for the current CPCH scheme. If VCAM (Versatile Channel Assignment Method) is adopted, these CRs should also be applied for VCAM.

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Document R1-00-0416
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

25.213	CR	028r2	Current Version:	3.1.1

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #7	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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 [X] UTRAN / Radio [X] Core Network [ ]

Source: LGIC, GBT, Samsung, Lucent **Date:** 2000-02-29

Subject: Channelization code allocation method for PCPCH message part

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	X
D	Editorial modification	

Release:

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

Reason for change: Since each PCPCH channel uses unique scrambling code, a common channelization code allocation method can be used for all the PCPCH channels. To reduce hardware complexity, it is desirable to use the current DPCH channelization code allocation method to PCPCH message part.

Clauses affected: 4.3.1.4

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

4.3.1.4 Code allocation for PCPCH message part

~~The signature in the preamble specifies one of the 16 nodes in the code tree that corresponds to channelization codes of length 16. The sub-tree below the specified node is used for spreading of the message part. The control part is always spread with a channelization code of spreading factor 256. The code is chosen from the lowest branch of the sub-tree. The data part may use channelization codes from spreading factor 4 to 256. A UE is allowed to increase its spreading factor during the message transmission by choosing any channelization code from the uppermost branch of the sub-tree code. For channelization codes with spreading factors less that 16, the node is located on the same sub-tree as the channelization code of the access preamble.~~

For the control part and data part the following applies:

- The control part is always spread by code $c_c = C_{ch,256,0}$
- The data part is spread by code $c_d = C_{ch,SF,k}$ where SF is the spreading factor of the data part and k=SF/4.

The data part may use the code from spreading factor 4 to 256. A UE is allowed to increase SF during the message transmission on a frame by frame basis.

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CHANGE REQUEST

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25.214	**CR**	**071**	Current Version:	3.1.1

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN #7	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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 [X] UTRAN / Radio [X] Core Network [ ]

Source: LGIC, GBT, Samsung, Lucent **Date:** 2000-02-29

Subject: Channelization code allocation method for PCPCH message part

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: Since each PCPCH channel uses unique scrambling code, a common channelization code allocation method can be used for all the PCPCH channels. Then, CPCH UL channelization code parameter does not have to be included in the System Information message.

Clauses affected: 6.2

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.

6.2 CPCH Access Procedures

For each CPCH physical channel in a CPCH set allocated to a cell the following physical layer parameters are included in the System Information message:

- UL Access Preamble (AP) scrambling code.
- UL Access Preamble signature set
- The Access preamble slot sub-channels group
- AP- AICH preamble channelization code.
- UL Collision Detection(CD) preamble scrambling code.
- CD Preamble signature set
- CD preamble slot sub-channels group
- CD-AICH preamble channelization code.
- CPCH UL scrambling code.
- ~~CPCH UL channelization code. (variable, data rate dependant)~~
- DPCCH DL channelization code.([512] chip)