3GPP TSG-RAN WG1#7bis
Kyongju, Korea, 4-5 October 1999

TSGR1#7bis(99)f79

Agenda Item: 5

Source: Samsung Electronics Co.

Title: Text proposal on section 7.1 in TS 25.214

1. Introduction

In the last WG2#7 meeting, the COS(Control Only Substate) is removed from RRC state diagram for its clarification and changed into "Radio Bearer Suspended"[1] mode (R2-99B25 by NOKIA). During Radio Bearer Suspended mode, a dedicated physical channel is maintained between UE and UTRAN and it is permitted to transmit only DCCH which carries signalling messages. Since Radio Bearer Suspended mode has same meaning with COS from the perspective of WG2, no impact is induced by this change except minor WG1 text modification, replacing "COS" with "Radio Bearer Suspended mode"

Ericsson expressed some concerns and comments about hearing aid problem due to regular DTX of uplink DPCCH transmission in the 3GPP RAN1 E-mail reflector. Mitsubishi[2] submitted a proposal which uses time hopping of the period of gated transmission which they claim has less effect on hearing aid. This suggestion seems to be reasonable and can be added to the existing gating pattern. Therefore, we added random gating pattern as TBD on section 7.1 in TS 25.214 [3]

2. Text proposal on section 7.1 in TS 25.214

========= begin of text proposal ==========

7. Procedures in Packet Data Transfer

7.1Gated transmission in ~~Control Only Substate~~ Radio Bearer Suspended Mode

[Note: Gated transmission in control only state is WA, not agreement in R1.]

7.1.1 General

The gated transmission of DPCCH in ~~Control Only Substates(COS)~~ Radio Bearer Suspended(RBS) Mode may be initiated by the UTRAN to reduce the transmission rate of Pilot, TPC, TFCI or FBI.

7.1.2 DPCCH channel with gated transmission mode

Table 1 Downlink DPCCH allocations during gated transmission mode enabled

Gating Rate	Downlink DPCCH allocations (time slot numbers 0-14)	
	Pilot	TPC
1	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
1/3	0, 3, 6, 9, 12	1, 4, 7, 10, 13
1/3	random pattern(TBF)	random pattern(TBF)
1/5	1, 6, 11	2, 7, 12
1/5	random pattern(TBF)	random pattern(TBF)

0	-	-

Table 2. Uplink DPCCH allocations during gated transmission mode enabled

Gating Rate	Uplink DPCCH allocations (time slot numbers 0-14)	
	Pilot	FBI, TPC
1	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
1/3	2, 5, 8, 11, 14	2, 5, 8, 11, 14
1/3	random pattern(TBF)	random pattern(TBF)
1/5	4, 9, 14	4, 9, 14
1/5	random pattern(TBF)	random pattern(TBF)
0	-	-

========= end of text proposal ==========

3. Reference

[1] TSGR2#7(99)b25, "Suspension of uplink user data transmission," Nokia, Malmo, 20~24 Sep. 1999.

[2] TSGR1#8(99)f43, "Reducing EMC problem in uplink DPCCH Gated mode," Mitsubishi

[3] TSGR1#7(99)e20, 3GPP RAN TS 25.214 v1.3.0(1999-09)