TSG-RAN Working Group 1 meeting No. 19 ***TSGR1#19(01)0412***
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Source:	**Samsung**
Title:	**Draft LS on revision of TR 25.840 "Terminal Power Saving Features" to v2.3.0**
To:	**TSG RAN WG2, TSG RAN WG3, TSG RAN WG4**
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During TSG RAN WG1 #19 meeting in Las Vegas, USA, TR 25.840 has been revised twice. First revision to version 2.2.0 (R1-01-0296) includes some clarifications on gated DPCCH transmission scheme, which are based on the discussions before this meeting, and also some editorial corrections. The changes from previous version 2.1.0 are:

- Include results of discussion in the e-mail reflector.
  - ✍✍ In section 6.1.4, footnotes are added in Figures 1 and 2 to indicate the transmission of CRC for outer-loop power control during gating.
  - ✍✍ Among gating parameters in Table 1 of section 6.1.1, TFS is replaced with TFCS. The reasons are that the embedded data period is used for transmission of the data with restricted TFCS and that TFS restriction is a method to restrict TFCS. And, it is clarified that TFCS restriction is given by higher layer signalling.
- In section 6.1.7.1 "Power Control Parameters",
  - ✍✍ Power control step size is removed by virtue of outer-loop power control during gating.
  - ✍✍ It is clarified that original power control parameters, which had been used before gating was initiated, are resumed without explicit signalling after termination of gating.
- In section 6.1.7.2 "Power Control Procedure", power control procedure during gating is further clarified.
- Section 7.1.4.1 is added to describe the impact on WG4 specification TS 25.101, which was agreed during TSG RAN WG4 meeting #15 (refer to R4-01-0010).
- Minor editorial corrections have been made and rapporteur's information is added in Annex B.

Although gating is now going to be stable through revision to version 2.2.0, there were discussions to further increase usage of gating. Those discussions and the comments raised during TSG RAN WG1 #19 meeting are reflected into version 2.3.0 as follows:

- In section 6.1.8.4, it is stated that a method for coexistence of gating and SSDT is being studied. And the related contribution Tdoc R1-01-0349 is referred.
- In section 6.1.8.2, text proposal for coexistence of gating and compressed mode (R1-01-0398) is included.
- At the end of section 8.1.2.2.2, impact of compressed mode on UE battery life improvement is described as follows:
  - ✍✍ If compressed mode is activated, UE battery life improvement will decrease depending on the ratio of embedded compressed mode frames duration over UE turn-on duration, since gating is temporarily suspended during embedded compressed mode frames.
- In section 8.1.2.3, it is stated that UE battery life improvement depends on UE implementation.

TSG RAN WG1 kindly requests TSG RAN WG2, TSG RAN WG3, and TSG RAN WG4 to discuss on the work item "Terminal Power Saving Features" based on the attached TR 25.840 v2.3.0 to continue relevant works.

Finally, CRs that were prepared during TSG RAN WG1 #19 meeting are attached for your information.

<Attachment>

R1-01-0417, Revision of TR 25.840 “Terminal Power Saving Features” to version 2.3.0

R1-01-0266, TS 25.214 CR, Addition of general description of gated DPCCH transmission to TS 25.214

R1-01-0267, TS 25.214 CR, Addition of power control during gated DPCCH transmission to TS 25.214

R1-01-0268, TS 25.214 CR, Addition of closed loop mode transmit diversity operation during gated DPCCH transmission to TS 25.214

R1-01-0403, TS 25.215 CR, Introducing gated DPCCH transmission scheme effects on TS 25.215


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