

Source : AH 8 Chair \*

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## Draft report on Ad hoc 8+4 meeting about compressed mode issues

**Summary** : the meeting starting the 19<sup>th</sup> of January at 9 a.m and closed at 1 p.m. 6 documents ( Tdocs 19, part of 86, 120, 121, 122, 139) were presented on puncturing for downlink compressed mode. There are still some leftover documents . Those for clarification purposes on compressed mode namely Tdocs 39, 66 ,67, rest of 86, 129 and 117 are expected to be dealt within this RAN WG1 plenary. Also some guidance is asked from the plenary concerning the handling of two documents Tdocs 127 and 128 (Hyundai Electronics, ETRI, LGIC) on intersystem handover from UTRAN to CDMA2000.

### 1. Compressed mode with Puncturing

*Tdoc 120 (Nortel)*

« Proposal for downlink compressed mode method with puncturing »

Nortel indicated some mistakes that will be corrected in a revised version. Also, 121 will be revised because of the "this file might be corrupted" MS word problem and because of some editorial problems.

The proposal is to insert an appropriate number of "p bits" in the appropriate places so that after equal segmentation, each segment minus the p bits will contain the same number of bits as in the unequal segmentation case. The total number of p bits for the CCTrCH is derived from the duration of the intersection of the gap and the radio frame ( $N_{TGL}$ ). The p bits are shared between the TrCH in a proportion set by means of the Z formula, where  $N_{data}$  is replaced by  $N_{TGL}$ .

*Tdoc 121 (Nortel)*

« Associated change request to Tdoc 120 »

This CR implies to modify the description of Rate Matchnig, though the Rate Matchnig itself is not changed. The change is that in the turbo code case the 3 bits classes ( $b=1$ ,  $b=2$  and  $b=3$  for systematic, parity 1 and parity 2) are made  $b=2$  and  $b=3$  as a single flow.

Comments made on this CR include :

- clarification of notations especially BR function
- clarification of multiple physical channels handling i.e. multicodecs is needed
- Some refinements need to be made in the description of the method itself

*Tdoc 122 (Mitsubishi)*

« Proposal to take more time to study and standardise compressed mode method A2. »

noted as it was written before presentation of Tdoc 120. Summarizes some issues with puncturing approach and proposes to delay it to release 2000.

*Tdoc 139 (Mitsubishi)*

Document for discussion. Compares 3 approaches for puncturing for compressed mode. Concludes. Nokia, Ericsson, Panasonic and Nortel agree that that the second approach (1<sup>st</sup> IL with matrix column having forbidden elements) seems the best way forward . Also this alternative approach seems to solve concerns on interleave gain degradation raised in Tdoc 122.

*Tdoc 15 (Nokia)*

« *Further methods for DL compressed mode by puncturing* »  
withdrawn.

**Conclusion for tdocs 120, 121, 122 and 139** : agreed to produce a draft Change Request among the interested parties based on tdocs 120 and 139 approach 2. This CR will be presented during this plenary and will be the working assumption for puncturing with compressed mode. The formal acceptance of this CR is delayed for the next meeting. The benefit would be that people have time to review this.

*Tdoc 86 revision of 20 CR (25.215-023)*

« *CR 25.215-023rev1: Compressed mode by puncturing issues (revision)* »

Consensus on puncturing on a TTI basis and not on a frame basis. Some discussions about the number of  $\Delta$  SIR to be signalled by the work. Issue important to be fixed as soon as possible as this has an impact on R2 signalling and assumptions. Document also contains a proposal to define some restrictions on TGL and TGP values. However there was no time to present the whole tdoc 86 in adhoc 8, and thus the rest of the document will be presented in plenary.

**Conclusion** : agreement on puncturing on a TTI basis and not on a frame basis. DeltaSIR issue, which was presented during adhoc 8 meeting in this document still needs to be further discussed. The rest of the document, dealing with restrictions to TGL and TGP values, will be presented in plenary.

*Tdoc 19 CR (25.215-022) « FDD-FDD interfrequency handover with compressed mode by puncturing »*

Proposes to introduce two different TGL sizes within a pattern and parameterize TGD slot-wise rather than frame-wise . Principle agreed but notations on associated Change Request need to be refined. The revised CR will be merged into CR presented in plenary, clarifying the compressed mode parameterisation in TS 25.215. As a general remark from delegates section 6.1.1.2 entitled « parametrization of compressed mode » needs to be refined ; for example SFN needs to be changed into CFN.

## 2. Clarification of some compressed mode definitions (to be dealt in plenary due to lack of time)

*Tdoc 129 revision of 65 (Nokia)*

«*Clarification of compressed mode parameters*»

*Tdoc 67 (Nokia)*

«*Adjustment of CM starting slot naming* »

*Tdoc 66 (Nokia)*

« *fixed gap position* »

*Tdoc 39 (Ericsson)*

« *clarification of downlink compressed mode* »

*Tdoc 117 (Ericsson)*

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