Source:	**TSG SA WG2**
Title:	**Liaison Statement on Transcoder Free Operation (TrFO) and Out of Band transcoder Control (OoBTc) for R99**
Agenda Item:	**5.2.3**

To:	**TSG SA, TSG RAN, TSG CN**
Cc:	**TSG CN WG2, TSG RAN WG3, TSG SA WG4**

3GPP TSG SA2#12   *Tdoc S2-000616*
Tokyo, Japan, 6-9 March 2000

Considering:

1. all unsolved technical points elaborated in attached S2-000419 and needing to be solved for the introduction of the TrFO/OoBTc features in R99:
   - Choice of the User plane protocol to carry the codec signal inside the CN: a choice seems to be assumed by some WG but no decision has been taken yet.
   - Procedure to be used at TrFo break: choice between alternatives not done yet
   - Prevention of user fraud: choice between alternatives not done yet
   - Choosing a correct set of BICC options: not clarified in the standard yet although it seems to be assumed by 23.153
   - There are cases (e.g. when serving MSC is served by a TDM link or is GSM) where 4 transcoders are put in the speech path: leads to not-acceptable bad speech quality. To solve this issue, bearer re-negotiation as supported by BICC CS2 is needed.
   - If BICC CS2 is needed, BICC version (CS1/CS2) has to be clarified
   - The way to negotiate the Iu User plane protocol version between remote RNC has not been defined yet, although currently only IU User Plane version 1 exists.

2. R3-000961 Tdoc (see attachment) stating that [1]
   - [*RAN WG3 recognises differences of views and assumptions between various 3GPP groups on Core Network and UTRAN aspects regarding codec control and selection. In addition, RAN WG3 had not enough time to make decision on technical solutions to various problems arising with TrFO support in the call scenarios stressed in the N2 liaison and attachments (R3-000700).*]

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[1] The following are quotations of R3-000961

3. The TrFO feature is linked (use of BICC, codec negotiation) with the "Transcoder at Edge" work item which is due to R00 (same use of BICC and of AAL2 switching). Nevertheless, the specification of the "TrFO/OoBTc" Shall not be delayed in the case the specification of the "Transcoder at the Edge" Work Item were delayed.
4. It has been mentioned by some WG that Harmonization of TFO and TrFO might be necessary. If the need such of an harmonization was confirmed, then the same June R00 objective could be given to both features.

It is proposed to postpone the TrFO/OoBTc feature for R00. A workshop between the interested parties (S2, N2, R3, S4) needs to be organized to solve the open points mentioned above.

References

1. general documents on OoBTC
   - R3-000961
   - S2-000449

2. technical documents on OoBTC
   - TS 23.153 v150
   - S2-000449 (with 2 attachment)
   - R3-000961 attachment 1

3. TrFO break description
   - R3-000961 attachment 2 (= S2-000449-attachment02)

Other References

1. Iu User Plane
   - 25.410 Iu UP protocol stack
   - 25.415 Iu UP protocol

2. ITU I.366.3 protocol