Agenda Item: **14.1, 14.2**

Source: **Ericsson**

Title: **Position of CRC-indicators in UL payloads**

Document for: **Decision**

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1. INTRODUCTION

During TSG-RAN WG3#6, based on contribution ref[3], it was accepted to group the CRC - indicators for all TB's transported in an UL Iub/Iur frame. In line with the proposal in ref[3], in both the UL RACH and DCH data frames, this block of CRC's was positioned at the start of the payload.

With this contribution we would like to change the position of the CRC-indicators to the end of the payload.

2. RATIONALE

When the CRC-indicators are positioned at the start of the payload, a node transmitting the frame can only start to calculate the payload CRC when the CRC-indicators for all TB's received on the Uu are known. This means that no parallelism is supported in checking the CRC's for the TB's received on the Uu and computing the payload CRC for the Iub frame.

However, when positioning the CRC-indicators at the end of the payload just in front of the payload CRC in the tail, this parallelism is supported to a large extend. When the TB's are received and decoded, immediately the Iub frame payload can be build and the payload CRC computation can be started. The computation of the CRC-indictators for the Uu TB's only needs to be ready when the payload CRC over the last payload bytes needs to be computed.

3. PROPOSAL

It is proposed to move the CRC indicators in the UL RACH and DCH data frames in [1] and [2] to the end of the payload after all the TB's, in front of the tail.

4. REFERENCES

[1]   TS 25.435 V0.4.1. TSG RAN: "UTRAN Iub user plane protocols for common transport channel data streams"

[2]   TS 25.427 V0.4.1. TSG RAN: "UTRAN Iub/Iur Interface User Plane Protocols for DCH Data Streams"

[3]   TSGR3#6 (99) 923: "Coding and structure of DCH FP data frames"