

Agenda Item: 9.1
Source: NTT DoCoMo
Title: Time alignment procedure without user data transmission
Document for: Clarification

1. Introduction

This document is intended to clarify if Time alignment procedure can be performed regardless of user data transmission.

2. Discussion

Section 5.4 of reference [1] simply describes function of Time alignment procedure, but it is not clear whether Time alignment procedure is possible regardless of existence of payload.

It is considered that, even if there is no payload at the beginning of communication, Time alignment procedure should be possible in order to achieve good initial estimation. Figure 1 shows format of PDU Type 0 in support mode, which should be applied in this case. Figure 2 shows an example of Time alignment procedure using the format in figure 1.

Bits											
7	6	5	4	3	2	1	0				
PDU Type				Frame Number				M	1	Bytes	Frame Control Part
PME	Procedure Control Bitmap							M	2		Frame Procedure Control Part
PCE	This field is FFS RAB Format Selection Control Field							O	3		Frame Procedure Control Part
PCE	This field is FFS Time Alignment Control Field							O	4		
PCE	Abnormal Event Control Field							O	5		
PCE	Initialization Control Field							O	6		
Frame Payload Check Sum (All 0)				Frame Header Check Sum				M	7	Frame Check Sum Part	

Figure 1: lu UP PDU Type 0 Format (Header Frame, No payload)

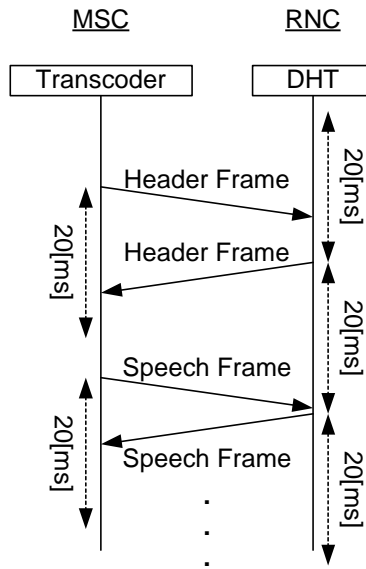


Figure2: Example of Time Alignment procedure

3.Proposal

It is proposed that following description should be added in section 5.4 of reference [1].

Time alignment procedure is possible regardless of user data transmission.

4.References

[1] UMTS 25.415, Ver.0.2.1