TSG-RAN Working Group 3 Meeting #7
Sophia Antipolis, France, Sept 20-24, 1999

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Agenda Item: **6.3**

Source: **Ericsson, Alcatel and NTT DoCoMo**

Title: **Node Synchronisation clarifications**

Document for: **Decision**

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1 Introduction

At the TSG RAN WG3 meeting #6, it was agreed to have the ability for the RNC to measure the Node Offset phase difference between its frame clock, RFN, and the frame clocks of its underlying Node Bs (BFNs). It was also stated that the Node Sync Frame Protocol may be run on a high priority transport bearer, see [1].

2 Discussion

A motive for inclusion of a separate VC for the Node Sync Frame Protocol, containing the DL and UL Node Sync Control Frames, is to not mix node sync control frames with ordinary traffic data frames. Using the same VC as ordinary data frames gives degraded performance compared to using a high priority VC for the Node Synchronization Control Frames.

By specifying the format of the control frames exchanged over such a VC, a multi-vendor situation could be handled, in case the vendors of both RNC and Node B supports node synchronisation.

3 Proposals

It is proposed to include the following text in TS 25.401, chapter 9.3 “Node Synchronization”. Add underlined part.

“..The procedure may also be carried out over a high priority transport bearer. ”
When a high priority ATM VC is used, it is configured and setup between appropriate termination points in CRNC and Node B respectively. The Node Synchronization Control Frames (UL and DL) have the same format as specified for the common transport channel and DCH user plane protocols. However, the ATM cell is padded out to fill up the entire cell, forming AAL0.
‘Measurements of node offsets can be made at start/restart as well as during normal operation to supervise

4 References

[1] TS 25.401, UTRAN Overall Description