TSG-RAN Working Group 1 meeting #12 **TSGR1(00)0494**

Seoul, Korea, April 10 ~ 13 , 2000

Agenda Item:
Source: CWTS
To: TSG RAN WG1
Title: Mapping of RACH onto physical channels
Document for: Discussion and Approval

Introduction

This file describes mapping of RACH onto physical channels for low chip rate TDD option.

Conclusion

It's proposed to discuss and include the following text proposal into the clause 7.3.2.3 Random access channel of TR25.928.

---------- text proposal of TR25.928 begin ----------

7.3.2.3 The Random Access Channel (RACH)

[Description:]

The RACH is mapped onto the P-RACH physical channel. The P-RACH configuration (time slot number and assigned spreading codes) is broadcast through the BCH information.

[Rational:]

The RACH is mapped onto the P-RACH physical channel. The P-RACH can be configured by the network operator.
The P-RACHs can use either any spreading factor 16 RU or any spreading factor 8 RU in any UL time slot of the sub-frame. The spreading codes and time slots assigned to the P-RACHs are broadcast by the cell from the BCH. The capability of mapping RACH onto any UL time slot offers more flexibility to the system. The interference handling is then configurable. As the RACH is different from the other traffic it may be advantageous to distribute the RACH resources on several time slots.

The uplink sync codes (SYNC1 sequences) used by the UEs for UL synchronisation have a well known association to the P-RACHs, as broadcast by the BCH.
On the P-RACH, both power control and uplink synchronisation control is used.
The burst type used on the P-RACH is the same as for a traffic channel.

[Explanation difference:]

In low chip rate TDD option the random access procedure has two-step approach. The PRACH uses the close loop power control algorithm which is similar with the traffic channel..
In high chip rate TDD option the PRACH uses open loop power control. The details of the employed open loop power control algorithm may be different from the corresponding algorithm on other channels.

In low chip rate TDD option the burst type used on the P-RACH is the same as for a traffic channel while in high chip rate TDD option the burst type of the PRACH is a little different from the traffic channel.

---------- text proposal of TR25.928 end ----------