TSG-RAN Working Group 1 meeting #7
Hannover, Germany
August 30 – September 3, 1999

TSGR1#7(99)b19

Agenda item:

Source: Ericsson

Title: Text proposal for RACH channelization code allocation

Document for: Decision

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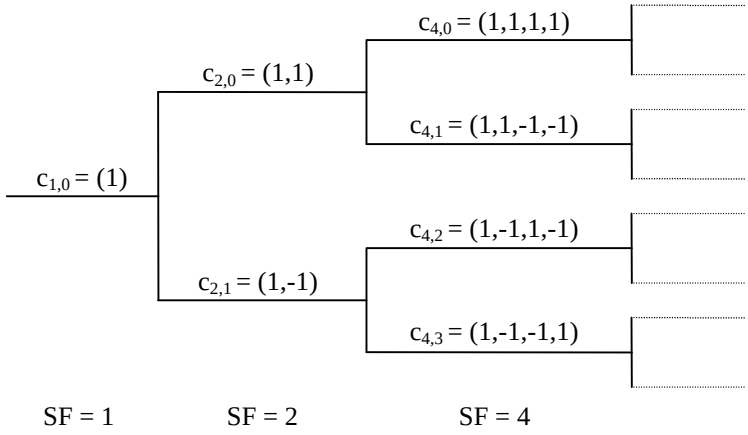
1 Introduction

The current section describing the channelization code assignment for the RACH message part is not 100% clear, and requires some further detailed specification. This paper proposes such text.

2 Text proposal for TS 25.213 V2.1.2

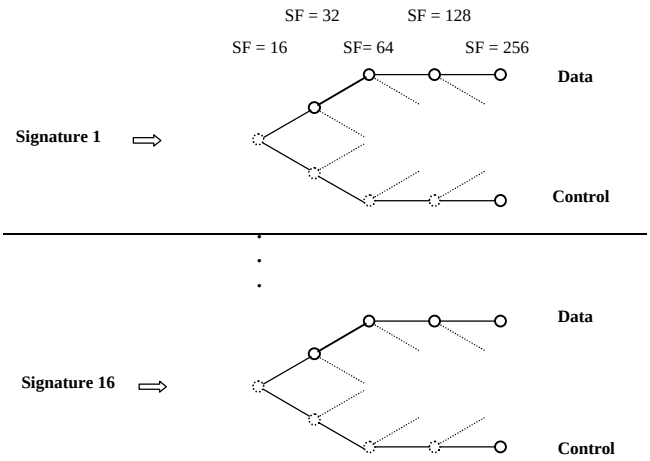
The text proposal in the following assumes the numbering of channelization codes proposed by Ericsson in TSGR1#6(99)845, i.e. the following numbering of the codes in the code tree:



4.3.3.4 Channelization codes for the message part

The preamble signature s, $1 \le s \le 16$, ~~in the preamble specifies~~points to one of the 16 nodes in the code-tree that corresponds to channelization codes of length 16~~, as shown in Figure 11~~. The sub-tree below the specified node is used for spreading of the message part. The control part~~(Q branch)~~ is spread with the channelization code $C_{ch,c}$ of spreading factor 256 in the lowest branch of the sub-tree, i.e. $C_{ch,c} = c_{256,m}$ where $m = 16(s - 1) + 15$. The spread control part is mapped to the Q-branch, similar to the DPCCH for dedicated channels.

~~-~~The data part~~ (I-branch) can~~ use~~s any of~~ the channelization codes from spreading factor 32 to 256 in the upper-most branch of the sub-tree. To be exact, the data part is spread by channelization code $C_{ch,d}$, where $C_{ch,d} = c_{SF,m}$ and SF is the spreading factor used for the data part and $m = SF \times (s - 1)/16$.



~~Figure 11. Channelization codes for the random access message part~~.