

QoS-aware Code Assignment in 3G Networks

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ABSTRACT

In 3GPP technical specification, the channelization codes used for spreading are Orthogonal Variable Spreading Factor (OVSF) codes. It can assign orthogonal channelization codes to user. In OVSF codes, there are two works to research : Code Assignment and Code Reassignment. Code Assignment algorithm wants to avoid fragment so that can reduce the probability of Call Blocking. Code Reassignment algorithm wants to increase the utilization of system, and to reduce the cost when code was reassigned. In this paper, we propose an algorithm, it can quickly select codes to reassign or not in order to reduce the cost of code reassignment when call blocking happened. The simulation result shows our algorithm can efficiently reduce the cost of code reassignment.

Keywords : OVSF Code Tree, Spreading Factor, Code Assignment, Code Reassignment, Call Blocking, QoS

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