A Study of OVSF Code Assignment

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ABSTRACT

In the mobile communication technologies of the 3rd Generation Partner-ship Project (3GPP), there is a wideband digital technology named WCDMA (Wideband Code Division Multiple Access). This technology includes the identity between the cell site and the customer premise equipment and data channelize. In the technology of data channelize, Orthogonal Variable Spreading Factor (OVSF) code can distinguish the different data tunnels and promise the orthogonality for different customer tunnels or the same customer but different business tunnels. Furthermore, this technology allows users apply the same frequency to translate information and undisturbed by each other. Therefore, upon providing the flexible application of the data trans-mitted speed , OVSF code has a great contribution of supplying the multime-dia service. However, due to its distinctive feature of orthogonlity , there is a limitation of the code allocation. It should concern both intelligence and good integration mechanism to achieve OVSF tree ' s highest system utilization. At present, the method of the OVSF coding has the following main directions for progression . The one is to reduce the probability of Code Blocking. The other is to lower the system resource expense generated by the reassignment. Finally is to decrease the delay time of request, in other words, it is to decline the operation algorithm time of the whole allocation process. The thesis is to make use of the schedule mechanism and integrates the methods mentioned above to develop a new allocation mechanism.

Keywords : WCDMA ; OVSF

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