OVSF碼配置機制之研究

游智為、黃鈴玲

E-mail: 9303825@mail.dyu.edu.tw

摘 要

在第三代行動通訊合作計劃(3GPP)的技術中，使用一種名為WCDMA的寬頻數位技術，這個技術包含了收發基地台與用戶設備辨識以及資料頻道化兩個部分。其中在資料頻道化?使用一種名為正交變數展頻因子碼(Orthogonal Variable Spreading Factor code; OVSF)來分辨不同的資料通道，保證不同用戶通道或者同一個用戶的不同業務通道的正交性，讓每一個使用者可以使用相同的頻率傳輸資料而不會互相干擾。OVSF碼因為提供彈性的資料速率應用，所以對提供多媒體服務有其重大的貢獻，但由於OVSF碼具有正交特性，所以在碼的配置上會有些限制，因此在配置的方法上必須兼顧智慧性以及良好的統籌機制讓OVSF樹達到最高的系統利用率。目前配置OVSF編碼樹的演算法主要針對下面幾個方向改良;第一點是減少碼阻斷(Code Blocking)的機率，第二則是減輕重配置(Reassignment)所造成的多餘系統資源支出，第三點是減少需求(Request)的延遲時間，即減少整個配置過程的運算時間，本論文提出一個方法，先利用佇列適當的暫存一些需求，再根據OVSF樹的現況選取佇列中最佳的需求來分配OVSF碼，以達到上述目標。

關鍵詞 : 寬碼多重分碼存取 ; 正交變數展頻因子碼

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