

使用服務門檻分派法則之寬頻分碼多工存取通道碼配置

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摘要

寬頻分碼多工存取 (Wideband Code Division Multiple Access, W-CDMA) 通道碼配置中, 減輕通道碼阻塞 (Code Blocking) 情況是許多人所努力的目標。但如果過度的消除通道碼阻塞, 則會導致高速率的服務佔據較多的頻寬, 也進而壓抑低速率的要求。因此我們提出本篇論文, 並將目標設定在: 降低系統中的高優先權服務被重新分派次數、增加總接受通話數。我們根據 UTRA (Universal Terrestrial Radio Access) 的RRC (Radio Resource Control) [1] 協定所定義的MLP (MAC Logic Channel Priorities) 準則, 依照資料傳輸即時性訂定其重新分派門檻, 按服務類型比對子樹內所有碼的重新分派成本和預先設定的重新分派門檻, 若重新分派成本不超過門檻值, 則決定重新分派子樹內已使用的碼, 讓新到達的服務能進到系統。反之, 則不重新分派子樹內任一個碼, 並拒絕此新到服務。藉此方式讓資源更有效率的分配並提升使用中的通話服務品質。本篇論文提出事先設定各服務重新分派比例, 讓系統按照此設定決定是否重新分派服務中的碼, 進而達到我們所要達成的目標。由模擬結果得知此優先權的設計可以達成我們預定的目標。

關鍵詞: 寬頻分碼多工存取、正交可變展頻因子碼、即時性、門檻

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