記錄編號	3346
狀態	NC088FJU00428006
助教查核	
索書號	
學校名稱	輔仁大學
系所名稱	電子工程學系
舊系所名稱	
學號	487506089
研究生(中)	田永慶
研究生(英)	Yeong Ching Teng
論文名稱(中)	第三代無線通訊系統上之適應性封包預留多重擷取通訊協定
論文名稱(英)	Adaptive Packet Reservation Protocol for 3rd Generation Communication System
其他題名	
指導教授(中)	劉惠英
指導教授(英)	Huey Ing Liu
校內全文開放日期	

校外全文開放日期	
全文不開放理由	
電子全文送交國圖.	
國圖全文開放日期.	
檔案說明	
電子全文	
學位類別	碩士
畢業學年度	88
出版年	
語文別	中文
關鍵字(中)	線路交換 分封交換 分碼多工混合封包擷取預留協定 分碼多工混合訊框擷取預留協定 允送機率
關鍵字(英)	crcuit-sitch packet-sitch CDMA/PRMA CDMA/FRMA permission probability
摘要(中)	傳統的 CDMA/PRMA 在低系統負載時有很短的通道擷取延遲，但高流量時卻有高封包損毀率，而 CDMA/FRMA 在高流量時卻有很好系統使用率然而在低系統負載時卻有高延遲，為克服此兩項做法的缺點，善用其優點，本論文提出了動態切換模式的概念，先依照系統中使用者人數調整不同的邊界值，並根據目前系統負載分為兩種不同的狀態，針對系統目

	前的狀態切換到最合適的操作模式，由於不同的操作模式可在不同的負載得到更好系統效能，藉此增加整體系統總容量及降低平均延遲，模擬驗證了此作法比 CDMA/PRMA 有更高的總容量及通道利用率而且其解決了 CDMA/FRMA 高傳輸延遲的問題。同時，在語音與資料封包混合的狀況下，加入了動態切換的概念使得 CDMA/ARMA 在網路流量驟變的環境可得到更好的系統效能。
摘要(英)	Although, traditional CDMA/PRMA system has low delay under light load, it suffers high packet corrupt rate under heavy load. On the other hand, CDMA/FRMA system suffers long delay in light system load but it obtains a better utilization under heavy load. To utilize the advantages of CDMA/PRMA and CDMA/FRMA system, this study proposes an adaptive packet reservation multiple access protocol (ARMA) for CDMA cellular system. According to system’ s situation, the ARMA protocol adjusts to suitable operation mode. Simulation results demonstrate that CDMA/ARMA system obtains a significantly higher system capacity than CDMA/PRMA and a lower access delay than CDMA/FRMA system.
論文目次	
參考文獻	[1] Alew E. Brand et al., “Performance of the CDMA/PRMA Protocol for Voice Transmission in a cellular Environment”, IEEE ICC’ 96, pp. 621-625, Dallas, July 1996. [2] Alew E. Brand et al., “Performance of the CDMA/PRMA Protocol for Mixed Voice / Data Transmission for Third Generation Mobile Communication,” IEEE J. Select Areas Commun., Vol. 14, No. 9, pp. 1698-1707, December 1994. [3] Antonio Arregui and John Dunlop, “Stability Analysis of the Contention Mechanism of PRMA++ Protocol,” IEEE VTC ’ 98, pp2124-2128, Ottawa, Canada, May 1998. [4] A. Baier et al., “Design study for a CDMA-based third generation mobile radio system,” IEEE J. Select Areas Commun., Vol. 12, No. 4, pp.733-743, May 1994. [5] C. J. Chang, T. Y. Liu, F. C. Ren, “Fuzzy / Neural Congestion Control for DS-CDMA/FRMA cellular Systems,” IEEE ICC’ 99, pp.203-208, Vancouver, June 1999. [6] D.J. Goodman and Sanjiv Nanda, “Performance of PRMA : A packet voice protocol for celluar systems,” IEEE Trans. Veh. Technol., Vol 40, No 3, August 1991. [7] K. Mori and K. Ogura, “An investigation of permission probability control in reserved / random CDMA packet radio communication,” PIMRC’ 97, pp. 933-937,

	Helsinki, Finland, September 1997. [8] D. J. Goodman and S. X. Wei, "Efficiency of packet reservation multiple access for local wireless communications," IEEE Trans. Veh. Technol., Vol. 40, No. 1, pp.170-176, February 1991. [9] N. D. Wilson, R. Ganesh, K. Joseph, and D.Raychaudhuri, "Packet CDMA versus dynamic TDMA for multiple access in a integrated voice / data PCN," IEEE J. Select Areas Commun., Vol. 40, No. 6, pp.870-884, August 1993. [10] N. D. Wilson, R. Ganesh, K. Joseph, and D.Raychaudhuri, "Performance of cellular packet CDMA in a integrated voice data network," Int. J. Wireless Inform. Network, Vol. 1, No.3, pp.199-221, 1994. [11] P. Narasimhan, R. Yates and D.J. Goodman, "Performance analysis of frame reservation multiple access," Third Annual International Conference on Systems Integration, Brazil, January 1994. [12] Tero Ojanpera and Ramjee Prasad, "An overview of air interface multiple access for IMT-2000 / UMTS," IEEE Commun. Magzine, pp.84-95, September 1998. [13] Roberto Beraldi, Antonio Iera, Salvatore and Piergiorgio Salerno, "A new dynamic reservation multiple access protocol for supporting multimedia traffic in third generation celluar system," ICCS 94, pp. 314-319, Singapore, August 1994. [14] Robert K. Morrow et al., "Packet throughput in slotted Aloha DS / SSMA radio systems with random signature sequences," IEEE Trans. Commun., Vol.40, No.7, pp.1223-1230, July 1992. [15] R. Ganesh, K. Joseph, N. D. Wilson and D. Raychudhuri, "Performance of celluar packet CDMA in an integrated voice / data network," Int. J. Wireless Inform. Networks, Vol. 1, No.3, pp.199-221, 1994. [16] W. C. Wong and D. J. Goodman, "A packet reservation multiple access protocol for integrated speech and data transmission," IEE Proc.-I, Vol.139, No.6, pp. 607-612, December 1992. [17] X. F. Dong and L. M. Li, "Spread spectrum PRMA and minimum reservation capacity spread PRMA for microcellular networks," PIMRC' 96, Vol. 2, pp.633-637, Taipei, Taiwan, October 1996.
論文頁數	43
附註	
全文點閱次數	
資料建置時間	
轉檔日期	
全文檔存取記錄	

異動記錄	M admin Y2008.M7.D3 23:17 61.59.161.35