



計算機組

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研究領域：異質網路議題、行動通訊服務系統設計

關鍵字：異質網路、行動通訊服務

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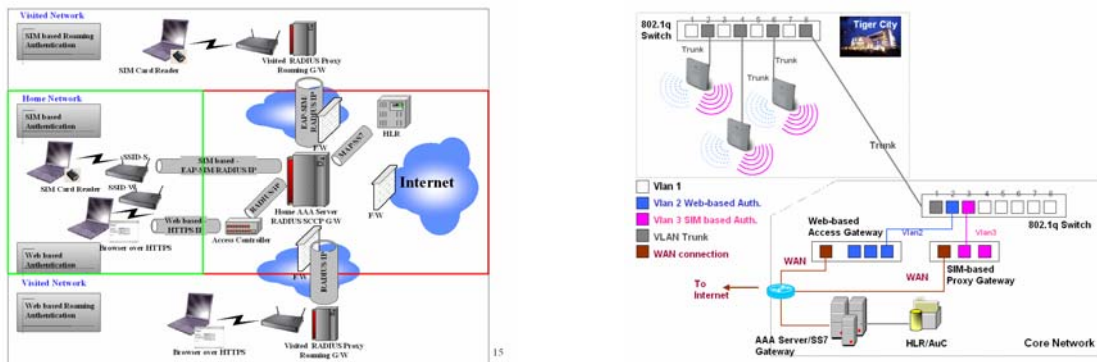
一、研究主題與目標

1. 異質網路相關議題:探討於異質網路上之應用與整合的問題
2. 行動通訊服務系統設計:探討行動通訊服務及系統架構設計時的問題
3. Peer-to-Peer 網路相關議題
4. 音樂資訊處理相關議題

二、最近研究題目

(a) 異質網路相關議題:

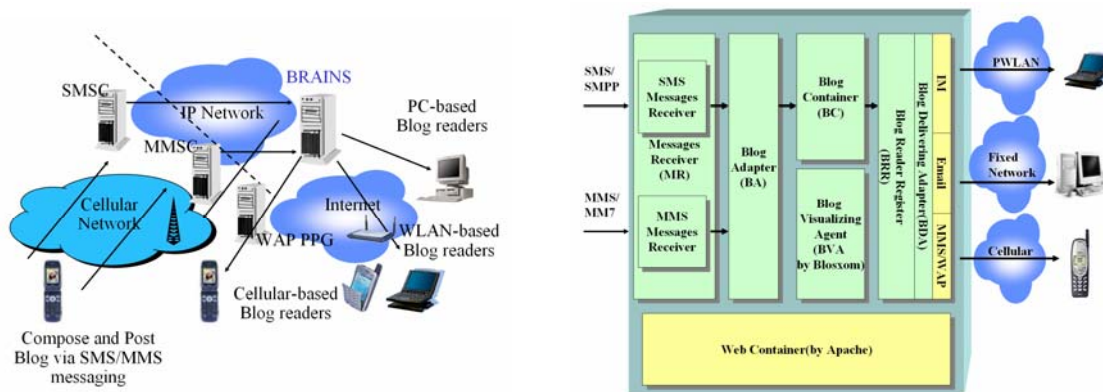
為提供更有效率的無線數據接取服務,不同的無線網路彼此間互補以提供更高的無線接取率,例如:無線區域網路與封巢式行動網路。多個異質網路整合於同一個網路服務群組將使其間彼此互動的關係更加複雜,於是我們著力於研究探討在整合時,所可能面臨的問題。



圖一 異質網路整合架構

(b) 行動通訊服務系統設計:

由於無線通訊技術的進展,在後語音服務時代,繼之而起的行動服務逐漸受到注意。典型的無線行動服務主要包含三部分:服務、使用者端設備及網路。於異質網路上(2.5G, 3G, WLAN or WiMAX)建置行動寬頻服務,可能會面對服務流程多樣性的問題。於是我們著力於研究探討在設計服務及架構時,所可能面臨的問題。



圖二 行動服務架構(以 BRAINS 為例)

三、主要的研究成果與所執行的計畫

1. 期刊論文：

[1] **J.-S. Leu**, "A Lightweight Brokering System for Content/Service Charging in a Cellular Network Centric Business Model", accepted by Computer Communications, Elsevier, Jan. 2008 [SCI,EI]

[2] **J.-S. Leu**, Y.-P. Chi and W.-K. Shih, "Design and Implementation of Blog Rendering and Accessing Instantly System (BRAINS)," Journal of Network and Computer Applications (JNCA), Elsevier, Vol. 30, Issue 1, pp. 296-307, Jan. 2007. (SCI, EI)

[3] **J.-S. Leu**, R.-H. Lai, H.-I. Lin and W.-K. Shih, "Running Cellular/PWLAN Services: Practical Considerations on Cellular/PWLAN Architecture supporting Interoperator Roaming," IEEE Communications Magazine, Vol. 44, Issue. 2, pp. 111-122, Feb. 2006. (SCI, EI)

2. 國際會議論文：

[1] **J.-S. Leu**, "Design and Implementation of A Lightweight Brokering System for Content/Service Charging in a Cellular Network Centric Business Mode," The 66th IEEE Vehicular Technology Conference (IEEE VTC 2007 Fall), pp.1990-1994, Baltimore, MD, USA, October 1-3, 2007. [EI]

[2] **J.-S. Leu**, W.-K. Shih and Y.-P. Chi, "Improving AAA Message Forwarding Lookup Latency for WLAN Roaming in Cellular/PWLAN Environment," the 2006 IEEE Consumer Communications and Networking Conference (CCNC 2006), Las Vegas, NV, USA, Jan. 8-10 2006. (EI)

[3] **J.-S. Leu**, Y.-P. Chi, S.-C. Chang and W.-K. Shih, "BRAINS: Blog Rendering and Accessing Instantly System," IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (IEEE WiMob 2005), Vol. 4, pp. 1 - 4, Montreal, Canada, Aug. 22-24 2005. (EI)

[4] **J.-S. Leu**, R.-H. Lai, H.-I. Lin and W.-K. Shih, "Practical Considerations on End-to-End Cellular/PWLAN Architecture in support of Bilateral Roaming," the 2005 IEEE Wireless Communications and Networking Conference (IEEE WCNC 2005), Vol. 3, pp. 1702 - 1707, New Orleans, LA, USA, Mar. 13-17 2005. (EI)

3. 計畫：

[1] 以網路為中心模式下輕量型加值服務認證授權計費之代理系統(96-2218-E-011-004-)