The Integration and Analysis for 802.11 Wireless Network Roaming

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ABSTRACT

As mobile telecommunications equipment popularizes, the network systems 802.x and TCP/IP are the main network structure today. To ensure satisfactory mobility for the telecommunications equipment, stable hardware and protocols with high capacity for integration are necessary. Protocol members of IEEE 802.11, which is stipulated by Institute of Electrical and Electronics Engineers (IEEE) are based on the data link layer of the OSI specification and the WLAN protocol specified in the physical layer. Although IEEE 802.11 has satisfactory wireless functions, the protocol did not specify the handoff between Access Points (AP) for Mobile Station (MS). This study integrates Inter Access Point Protocol (IAPP) and Remote Access Dial In User Service (RADIUS) into IEEE 802.11 so that the MS could proceed with authentication and authorization in WLAN through RADIUS and allow the handoff between APs. This study also realizes inter domain network roaming on IEEE 802.11 by using Mobile IP protocol and last analyzes the handoff in inter domain network roaming.

Keywords: IEEE 802.11 MS AP Handoff IAPP RADIUS Mobile IP

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