Fast and secure handover authentcation scheme in Mobile WiMax

ABSTRACT

Handover is one of the essential elements that can affect the Quality of Service (QoS) and capacity of Mobile Broadband Networks. The next generation of broadband wireless networks including the IEEE802.16e standard, allow users to roam seamlessly and securely over the network. Unfortunately the current design suffers from lengthy delay between breaking of previous connection and making of next connection. This delay might not be tolerated by some of the real-time applications such as VoIP and video streaming. Therefore the need for fast and secure handover design becomes an urging necessity. This paper proposes a new handover mechanism enables fast and secure handover with minimum delay suitable for real-time applications. It should be pointed that this proposed handover protocol guarantees a forward and backward secrecy. We conducted our research using ns-2 simulation tool.