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Authors:

A. I. A. Jabbar

Harith G. A.

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## Abstract

The security of wireless networks against hacker attacks depends on some parameters and special configurations. Authentication is considered as one of the most important security parameter in computer networks [1]. The communication for example between users through the internet must be authenticated by both sides in order to prevent hackers from pretending any one of them [2]. Authentication process has the function to allow or prevent users from accessing the wireless network like IEEE 802. 11b or 802. 11g, it can be applied also to wired networks [3]. IEEE 802. 1X [4] is the famous standard which uses Extensible Authentication Protocol (EAP) to authenticate users before giving them access to the network [5]. The process of authentication is extended to include RADIUS protocol which is designed to authenticate remote users within special organizations, then upgraded to include most of the operating systems and computer networks. It is now the most famous and applicable protocol for authenticating remote users [6]. Recently, the operating system Android has dominated other operating systems, it is based on Linux core and has the capability to support 802. 1x and other security protocols [7]. In this paper, 802. 1x protocol is applied to authenticate users using windows 7 and Android operating systems, a comparison to show the main differences between them is introduced successfully in mixed (computer & mobiles) network.

## Refer

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## Index Terms

Computer Science

Wireless

## Keywords

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