

Text and image: a new hybrid authentication scheme

ABSTRACT

Nowadays authentication considered the most vital field in term of security aspects because it represents the first line of defense in total process of our asset's protection. In order to get access to any data especially when they are private, authentication is required as the first step of protecting accessing our assets. Therefore, many techniques been invented to create appropriate authentication process, for example the traditional textual password technique, the graphical passwords techniques and biometrics techniques. These techniques involved a sequence of procedures all aim to three things (confidentiality against attackers, acceleration of access time, simplification of the created technique). However, the rapid growth of threats for example the shoulder surfing attacks led to invent many techniques concentrated only on the confidentiality aspect and neglected other important aspects like easiness of utilization, as a result; these techniques suffered distinctly the issue of complexity. Many techniques been proposed in order to eliminate the complexity problem without losing their confidentiality purpose, however; most of them did not succeed. For that reason, this research presents a new hybrid technique that combines the maintenance of confidentiality against shoulder surfing attacks and the simplification of utilization at the same time, our technique consists of two simple techniques but effective to solve complexity issue with maintaining the confidentiality aspect, these two techniques are the traditional textual password and the graphical password.

Keyword: Graphical password; Textual password; Hybrid authentication; security