Abstract

Cued Recall Graphical Password System Resistant to Shoulder Surfing (CRGPS) is one of the graphical password schemes that use the images as cued which helps the user at the time filling the passwords. The advantages of graphical passwords are easier for users to remember the password through the picture provided and the passwords combination is very large. Therefore, the password is quite difficult to penetrate with brute force attacks. But the weakness of graphical password is till in constraint. CRGPS proposed with the aim of shoulder surfing able to withstand attacks by using images as cued.

But because CRGPS use textual password more than one time, to fill the password we need to find out how minimum of character that can be used without compromising the system's security against shoulder surfing attacks. By testing CRGP system that uses 6 to 4 characters long on textual password against 10 participants who plays as shoulder surfing attackers, could show that the system is able to withstand the attack of shoulder surfing even though the characters are short. Additionally, it will be tested by using a keylogger and then analyze the results which is use to attacks the system. To build CRGPS system we will be using PHP script which is contained on XAMPP 1.7.3. The results showed CRGPS able to withstand shoulder surfing attacks up to 100%, but still weak against simple keylogger attacks that monitors each user's login and then use it to attack the system.

Keywords: authentication, graphical password, shoulder surfing, textual password