An approach to web defacement and intrusion monitoring with the Web Defacement and Intrusion Monitoring Tool: WDIMT

Mfundo Masango1[mmasango1@csir.co.za], Francois Mouton2[moutonf@gmail.com], Palesa Antony[pantony@csir.co.za], and Bokang Mangoale[bmangoale@csir.co.za]

Command, Control and Information Warfare Defence, Peace, Safety and Security, Council for Scientific and Industrial Research Pretoria, South Africa

Abstract

Websites have become a form of information distribution; usage of websites has seen a significant rise in the amount of information circulated on the Internet. Some businesses have created websites that display services the business renders or information about that particular product; businesses make use of the Internet to expand business opportunities or advertise the services they render on a global scale. This does not only apply to businesses. Other entities such as celebrities, socialites, bloggers and vloggers are using the Internet to expand personal or business opportunities too. These entities make use of websites that are hosted by a web host. The contents of the website is stored on a web server. However, not all websites undergo penetration testing which leads to them being vulnerable. Penetration testing is a costly exercise that most companies or website owners find they cannot afford. With web defacement still one of the most common attacks on websites, these attacks aim at altering the content of the web pages or to make the website inactive. This paper proposes a Web Defacement and Intrusion Monitoring Tool that could be a possible solution to the rapid identification of altered or deleted web pages. The proposed tool has web defacement detection capabilities that may be used for intrusion detection as well. The proposed solution will also be used to regenerate the original content of a website, after the website has been defaced.