Abstract

In today’s world web applications and internet services have become an integral part of daily life, enabling communication and the management of personal information from anywhere. In order to accommodate humungous increase in demand and data complexity, web applications are moved to multitier design. With the increase in popularity of web applications, these applications also become target of various attacks. To protect multitier web applications several intrusion detection systems (IDS) have been proposed. This paper focuses on development of WebGuard – designed to deploy the IDS at the front end web server as well as the back end data base server. WebGuard generates the containers for isolating user sessions using virtualization technique. This strategy mainly focuses on detecting SQL Injection, Privilege Escalation, Session Hijacking, Direct DB and Cross Site Scripting (XSS) Attacks in multi-tier web applications by using a pattern mapping algorithm. This paper also proposes a preventive system to secure web applications from XSS attacks.

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Index Terms

Computer Science  Security

Keywords

Intrusion Detection System  Pattern Mapping  Virtualization.