Abstract

In this paper, we present a systematic study of how to make a browser secure. Web browser is vulnerable to different attacks; these attacks are performed due to vulnerabilities in the UI of the web page, Browser cache memory, extensions, plug-in. The Attacker can run malicious JavaScript to exploit user system by using these vulnerabilities. Buffer overflow attack, Cross-site-scripting, Man-in-the-middle, Extension vulnerability, Extreme Phishing, Browser Cache poisoning, Session hijacking, Drive-by-download, Click-jacking attacks are discussed. Browser with electrolysis system and sandboxed processes are discussed to prevent the browser from attack.

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**Index Terms**

Computer Science Security

**Keywords**

Web application security, Heap overflow, Electrolysis, Sandboxing