Hijacking of Clicks: Attacks and Mitigation Techniques

Clickjacking attacks are an emerging threat on the web. The attacks allure users to click on objects transparently placed in malicious web pages. The resultant actions of the click operations may cause unwanted operations in the legitimate websites without the knowledge of users. Recent reports suggest that victims can be tricked to click on a wide range of websites such as social network (Facebook, Twitter), shopping (Amazon), and online banking. One reported incident on clickjacking attack enabled the webcam and microphone of a victim without his/her knowledge. Therefore, clickjacking attacks need to be mitigated to prevent much of these unwanted consequences.

In this talk, we will first examine some basic and advanced level clickjacking attack techniques. Then, we explore some existing solutions applicable at the server and client sides. We will argue that existing approaches can be circumvented. Then, we will present our recently developed framework named *ProClick*that can check the symptoms of clickjacking attacks early at the proxy level and protect end users from being victims of clickjacking attacks. We will show some of our initial evaluation results of the ProClick based on dataset of legitimate and malicious websites. Finally, we highlight the future challenges in the area of clickjacking attack mitigation.

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Presenter: Dr. Ying Xie is an Associate Professor of Computer Science and the director of the MSCS program at the Kennesaw State University. His research interests include big data, cloud computing, bioinformatics, and computational intelligence. His research was sponsored by a couple of US companies and the National Science Foundation (NSF). He holds an US patent as a co-inventor. He has been involved in organizing several international conferences and workshops in data mining and granular computing. He was an Invited Speaker at the 2008 IEEE international conference on granular computing.