Biometric Mechanism for enhanced Security of Online Transaction on Android system: A Design Approach

Mangala Belkhede*, Veena Gulhane**, Dr. Preeti Bajaj***

* Department of Computer Science and Engineering,
** Department of Computer Science and Engineering,
*** Department of Electronics Engineering,
G. H. Raisoni College of Engineering, Nagpur, India.
msmadankar@gmail.com, vinagulhane@gmail.com, preetibajaj@ieee.org

Abstract— The next generation of banking applications won’t be on desktop or mainframes but on the small devices we carry every day. Secured e banking on the mobile is the latest issue for all mobile users. In this paper authors have focused on, how biometric mechanism provides the highest security to the mobile payment. The present security issues surround the loss of personal information through the theft of the cell phone. The use of biometrics has been virtually eliminated the possibility of someone gaining access to a third party cell phone directly. It is therefore important that the biometric identification templates are not certainly stored on the phone but will gather at run time. A man in middle attacking at WAP gateway is a great concern. So for securing the biometric identification template on the WAP gateway from client (mobile) to server (host server) RSA algorithm will provide the enhanced security at transmission level. The current paper presents the proposed biometrics mechanism to secure the mobile payment also provides the security at the wireless transmission level. Biometrically secured mobile payment system is much safe and secure and very easy to use, also no need to remember passwords and secrete codes. Mobile payment is used for banking and various M-commerce applications. Here authors are using the Android mobile for taking the real time fingerprint image for login the Mobile Banking Application. The main research focus on the feature extraction from the runtime fingerprint image on the Android mobile and send to the server for authentication. A newly proposed Fuzzy Logic Based fingerprint matching algorithms will be implemented at the server side.

Keywords— Biometric security, Mobile banking, Mobile Payment, Android, M-commerce