A Scheme for Integrated Multi-banking Solution

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Abstract

In this paper we wish to propose an integrated model which uses a combination of Biometrics, smart card, user name, single interface and single password for accessing multiple bank accounts by the user in online banking applications. A variety of biometric systems are found in the literatures which are used for authentication purpose. In general, most of the users
will have multiple online bank accounts and each one of them will have separate passwords. One has to remember all the passwords if he/she wants to operate his/her account. On the other hand if the user uses same password chances for cracking would increase. We propose a system where an interface is provided to the user to enter his details along with the biometric data. These data is sent to the authentication server which in turn allows the user to operate all his bank accounts with a onetime TAN generated by the server. This is an enhanced integrated system which provides a single interface for operating multiple bank accounts, uses smart card as a database to store the templates as well as encryption, hash function etc., and two servers namely Remote Authentication Server (RAS) and Remote Control Server (RCS) along with the mobile service provider. In addition to that we propose to use artificial intelligence on the RAS side for classification and identification of genuine users and fraudulent users.

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Index Terms

Computer Science
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Key words

Single interface single Password biometrics smart card

Remote authentication server
Remote control server
multiple bank accounts
Transaction authentication numbers