Two-Factor Authentication for Web Services using Smart Cards

In modern world e-commerce is one of the major factor used for online transactions an in which most of the issues are created on top of the web environment and naturally extra security and reliability required for transactions. Two-factor authentication (TFA) is very effective concept for enhance web security and it is used along with smart cards to improve the existing security levels used in web authentication.

Basically this paper described the connection between smart card utilization issues, connected with two-factor authentication principle. Smart cards used in the system can store user verification details and the system can retrieve them while transaction and create extra authentication layer to enhance security.

Finally the system contain smart card management application, standalone sim reader which contain smart card sim and appropriate web API’s to use this utility to develop general web applications. Although this system provide very simple and inexpensive way to enhance online transaction security comparing with existing technologies. The cost to develop the system is very low and it is around 30$. This project provides an effective vision toutilize software and hardware environments together to improve online security.