A Server Electronic Wallet Architecture Supported Multi-payment Protocols and Instruments

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ABSTRACT

With the development of electronic commerce, more and more people and enterprises do electronic business on the Internet. So the electronic payment tools, which should be secure and extensible, are needed very much. Electronic wallet is one of the most important electronic payment tools. An electronic wallet is a collection of confidential data of a personal nature or relating to a business role carried out by an individual, managed to conventions agreed with the owner, to facilitate completion of electronic transactions. Electronic wallets can be classified into two classes with whether they are based on fat electronic wallet model or server electronic wallet model. At the present time several electronic wallets, some are fat electronic wallet, others are server electronic wallet, have been developed. But they don't support the multi-payment protocols and instruments together, which is not convenient to the people and enterprise. In this paper first we research on the fat electronic wallet model and the server electronic wallet model and analyses the difference between them. Secondly we present a new server electronic wallet architecture, which supported multi-payment protocols and instruments, based on sever electronic wallet model and is secure and extensible. In the end we give its prototype implementation based on the architecture presented by us with the extensible markup language, web service and security technologies.

Keywords: server electronic wallet, fat electronic wallet, multi-payment protocols, multi-payment instruments.