Abstract

The Internet Open Trading Protocol (IOTP) is an electronic commerce protocol being developed by the Internet Engineering Task Force. IOTP aims at providing an interoperable framework for electronic commerce (e-commerce) over the Internet. IOTP is expected to evolve into one of the central building blocks for the developing of next generation e-commerce on the Internet. The success of electronic commerce depends upon effective electronic payment systems. There are many security mechanisms specific to different payment systems. Each
payment system defines its own messages and has its own security requirements. Yet one of the major concerns in the internet is interoperability. One way to achieve this is to define a higher level of abstraction, that is, a common electronic payment framework specifying a set of protocols that can be used with any payment system. We introduce a rights insertion, rights verification and rights transfer phase for IOTP. Although many payment systems already implement their own security mechanisms, there still may be a need for additional security mechanisms at the framework level. Finally a number of solutions have been proposed based on the problem and discussed on the prospect of electronic payment systems. This is the philosophy of a payment framework proposal, IOTP, described in this paper. It would help to increase the efficiency of electronic payment systems.

Reference


Index Terms

Computer Science
Communications

Key words

Internet Open Trading Protocol
payment handler
Electronic payment framework
security issues