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 system. 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.

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Index Terms

Computer Science       Communications

Key words

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payment handler

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security issues