Design and Implementation of a General Secure Extensible Payment Gateway Architecture

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ABSTRACT

With the development of electronic business, more and more enterprises do electronic business. The last work of doing electronic business is the electronic payment. The bank and financial organization generally use the secure financial network to deal with inter financial transactions. They generally provide the financial service with payment gateway, thus we can execute our payment transactions through Internet. In general the enterprises developing electronic business systems have several financial accounts in different bank or financial organization. At the present time every bank has itself payment gateway and these payment gateways are not compatible each other, which increases the difficulty and complexity of design and implementation of the enterprise's payment system. So in this paper we present a general secure extensible payment gateway architecture. In addition we give its prototype implementation applying web service technology and XML technology. The enterprises use it to develop its payment system instead of using several different payment gateways to implement its payment system. Thus the difficulty and complexity of the design and implementation of the payment system is decreased.

Keywords: payment gateway, web service, DataCash, payment gateway manager