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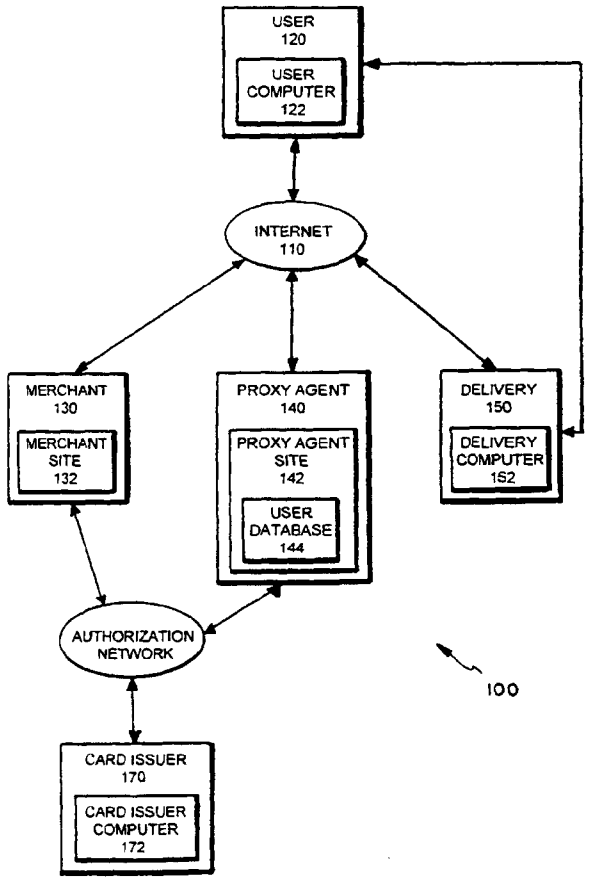
(54) Title: PROXY SYSTEM FOR CUSTOMER CONFIDENTIALITY



(57) Abstract: A system and method for allowing customers to make purchases and take delivery of goods or services with a desired level of security and confidentiality are disclosed. The system and method enable a customer (user) (120) to effect a purchase and a delivery of goods or sevices from a merchant (130) without revealing selected real user data to the merchant. In one embodiment, the system includes proxy user data generator for generating proxy user data (144) corresponding with selected real user data, a database for storing the selected real user data and the corresponding proxy user data, and a purchase authorization request and reply router connectable to a network for routing purchase authorization requests and replies between a system includes a unit for providing real delivery data corresponding with proxy delivery data to a delivery entity (150). The system and method are useful for making purchases and taking delivery from either traditional retail outlets or on-line merchants.

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PROXY SYSTEM FOR CUSTOMER CONFIDENTIALITY

BACKGROUND OF THE INVENTION

Field of the Invention

This invention relates generally to information security and confidentiality, and more particularly, to a system and a method for enhancing the security and confidentiality of users who make purchases and take delivery of goods or services. The system and method of the present invention include features that reduce opportunities for unscrupulous individuals or entities to obtain personal user data, and for marketers and others to gather information on the purchasing habits of users, including users who make on-line purchases.

Background

When making purchases of goods or services, customers generally have a variety of payment options available to them with varying levels of confidentiality. For example, customers who pay for their purchases using cash can advantageously maintain their anonymity, because they typically are not required to reveal any personal information to complete the transaction. In contrast, customers who pay for their purchases using credit or debit cards must often present valid identification showing their names and/or residential addresses. At the very least, a customer who uses a credit or debit card must reveal his or her card account number to a merchant, who typically transmits the account number to a third party for validating the account and for obtaining authorization to complete the sale. Further, a customer who takes delivery of his or her purchases at a particular location or via a personal computer must also reveal delivery information such as a shipping address or an e-mail address. As a result, credit or debit card account numbers, information about purchased items, names and addresses of the card holders, etc., can be easily correlated by the merchant and/or the third party and used in their own businesses or sold to others.

This problem is especially acute for customers who make on-line purchases; *i.e.*, customers who purchase goods or services from merchant sites over a public distributed network such as the Internet. Not only can merchants and credit or debit card authorities gain access to a customer's personal information during an on-line transaction, but unscrupulous individuals or entities can also intercept the customer's personal information and/or information about the transaction sent over the network. This can lead to a serious invasion of privacy for the customer and weaken the customer's confidence in the Internet as a viable commercial medium. For example, such unscrupulous individuals or entities may attempt to commit credit card fraud by using intercepted credit card account numbers.

Various systems and methods have been proposed for enhancing customer information security. For example, in US Patent 5,420,926 ("the '926 patent") issued May 30, 1995, to Low et al., a method for making an anonymous non-cash transaction is described. In accordance with that disclosure, a communications exchange is used so that information and/or funds may be transferred without the destination of the transfer knowing the source of the information and/or the funds. Public key encryption is also used so that each party to the transaction and the communications exchange can read only the information the party or the exchange needs for its role in the transaction.

In addition, in US Patent 5,815,665 ("the '665 patent") issued September 29, 1998, to Teper et al., a method of providing an on-line service to a user over a public network is described. According to that disclosure, an on-line brokering service provides user authentication and billing services to allow users to anonymously and securely purchase on-line services from service provider sites over a distributed public network such as the Internet. After performing a user authentication process, the on-line brokering service transmits an anonymous user ID to the service provider site, which can be used by the service provider for subsequently billing the user. A database of user payment information, *e.g.*, credit card numbers and other personal user data, is maintained at the on-line brokering service site and is neither sent over the distributed public network nor exposed to the service provider sites.

However, the methods for enhancing customer information security described in the '926 and '665 patents have some drawbacks. Specifically, if a method for making on-line purchases is to be fully accepted and utilized by customers, then it not only must guard against unauthorized disclosure and use of customer personal information, but it also must be convenient and easy-to-use. Although both the methods of the '926 and '665 patents may be used for enhancing customer information security, they substantially limit the convenience of making on-line purchases by either requiring customers to install and use specialized software on their computers or requiring customers and merchants to communicate indirectly through a third party.

It would therefore be desirable to have a system and a method for making on-line purchases and taking delivery of the purchases that keeps customers' personal information confidential and secure throughout the purchase or purchase and delivery transactions, while still allowing customers and merchants to communicate with each other over the public network without undue interference from any third party. Such a system would be convenient and easy-to-use for all parties involved in purchase and delivery transactions. It would also be desirable to have a system and a method for enhancing customer information security and confidentiality that can be used for both on-line and conventional purchase and delivery transactions.

SUMMARY OF THE INVENTION

The present invention provides a system and a method for enabling a customer (referred to herein as a "user") to make purchases and take delivery of goods or services while keeping some or all of the user's personal information confidential and secure throughout the purchase and delivery transactions. The user's personal information may include, but is not limited to, the user's real name, real residential or shipping address, real e-mail address, and real credit or debit card account number. Before making purchases and/or taking delivery of goods or services, the user obtains proxy personal information for use in place of the user's real personal information during the purchase and/or delivery transactions. Because the user may select the real personal information for which he or she desires

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