Title of Invention : End-to-end Online Shopping System and Process

1) Overview Of Cross Border Online Transaction (B2C)

Online shopping has been booming during the last 5 years that many have predicted that by 2011, 13% of all sales will come from Online sales. Most of these sales, about 70% of them, are domestic purchases and the rest are cross border transactions.

Cross border transaction however are hindered by many barriers, including :

- Merchants do not ship overseas
- Only domestic cards are accepted
- Differences in countries' custom requirements and regulations
- Afraid to use credit cards in a foreign land

This paper hopes to resolve the above problematic areas by leveraging on our new technology and process to enable online shopping easy to use and shop. In doing so, we believe we have created a World's First in online shopping process cum technology where we hope to have an overall major impact on ecommerce technology.

2) Patent Description

The invention disclosed here includes an efficient universal method of displaying the currency according to the buyers' billing address. It is a method and apparatus for overcoming barriers from various countries between merchandisers and buyers. Using their computers to visit websites on the internet, buyers are able to view a common currency despite the products being originated from different merchandisers' website.

The program reads and automatically converts the value and currency. It converts the currency to the respective buyer's billing address. It converts to the currency; add in respective charges, based on a database.

The amount showed to them is a full landed price which includes international and domestic freight charges and tax tariff. There are no hidden charges. Therefore, buyers will be able to keep track of the total costs for every transaction more conveniently.

Example. The buyer is residing in Singapore and he/she is viewing a site where the products are available in Australia. The currency shown on the site will be displayed as "SGD" instead of "AUD". The amount shown will include all charges eg. Shipping costs, tax tariff etc.

We provide both parsing program and concierge service. The parsing program is common. However, other similar companies who also offer concierge service, they do not have a complete system. However, we integrate all the system by offering both parsing and concierge services.

Parsing is the process that searches through the hyperlink, replace it with our link.

Our link includes our page link and the counterparty's link as a parameter, in the URL.

The link is encrypted in a way that the buyer is not able to view the link of the merchandiser's site URL. However, they are still able to view the products in the site.

Encrypting is needed for security purposes, as it protects the company's welfare and reputation.

Concierge service refers to buying on behalf of and provides delivery to a consumer.

Example. A Singaporean buyer purchases a product, eg. Motorola hand phone which is available only in USA. The online merchandiser will inform their branch in USA to process the order; purchase the product from the Motorola Company. When the product reached the branch in USA, they will send it to the Singapore branch, and the Singapore branch will deliver to the Singaporean buyer.

Another feature of our process is the browser emulator function. This simulates the back end operator to buy the product from online merchant more easily.

The browser simulator function caters to the back end operator. It shows the list of URL (Uniform Resource Locator) being keyed in previously. This enables them to key in the correct URL, thus able to search for the product page correctly and faster.

This function is similar to Auto Fill-in function which is available to all computer users. Auto fill-in is a function whereby the program keeps record of the words that is keyed in previously, and it helps to automatically fill in fields, shows a record of the words that have been keyed in.

The processes are further explained upon reading the following detailed description and upon referring to accompanying drawings.

3) Brief Description of The Process

High-level block diagram of the virtual channel of global trade, illustrating the hardware and software used by buyers, (other parties included)

A flow diagram (drawing 1) illustrating the sequence of operations, how it provide information and products from manufacturers to Buyers.

[101] The request to go to the Motorola Web server is typed in by the buyer.

[102] The Motorola web server responds to the request and the home page is displayed in the user's computer screen.

[103] The user types in the URL to go to the Home page of Motorola web server.

[104] The link from the Parsing proxy server back to the user page. The page will be displayed on the user's computer.

[105] The request for the link to the Motorola web server.

[106] The link responded back to the Parsing Proxy server.

[107] The parsing of link takes place, and replace the hyperlink. Example. The html for the Motorola site is <a href= "http://www.motorola.com/" > However, the link will be encrypted to <a href= " www.tarazz.com/gateway.aspx?original" = http://www.motorola.com ">

[108] Concierge service refers to buying on behalf of and provides delivery to a consumer.

The diagram shows that a Singaporean buyer purchases a product, eg. Motorola hand phone which is available only in USA. Our back end operator will process the order, purchase the product from the Motorola Company. When the product reached us, the product will be delivered to the Singaporean buyer.

[109] The shopping cart where all transaction will be recorded and total costs will be shown to the buyer. The buyer will proceed with confirmation of transaction, keying in the credit card number for payment.

[110] ARPO. This refers to Account Receivable Purchase Order. All purchase orders are consolidated and goods will be processed by the back end operators.

[201] The Parsing Proxy server. It processes all the transactions, taking in and responding to different requests from users from various countries, process, order, delivering of the orders.

[202] The database that is referred to, when conversion of currency and additional costs is added. The program detects, reads, converts the value when a "$" sign, followed by the number is displayed on a particular page. The database consists of information such as the additional costs for respective products, conversion rate for different currency etc.

[203] Hyperlink. Icons, words are displayed on the page and are hyperlinked to other merchant websites. Buyers click on the link, and they access to our parsing proxy server first, then they access to their desired page.

For the current technology, there are disadvantages when doing online shopping. The problem that exists is as follows:

a) Delivery of goods

The goods ordered may not be delivered on time, especially if the consumers purchase big bulks of products. The different suppliers' ship out the products on different days and the suppliers are situated in different countries. Thus, it will not reach the consumer on time, and reach consumer on different days.

In the case of the consumer purchasing lots of products, there is a possibility that the products are being mixed up with other products. This increases the chances of the wrong product being delivered to the wrong buyer.

Some merchandisers do not deliver products to other countries that are not within their area. E.g. US merchandisers refuse to deliver to consumers residing in the Hong Kong area.

b) Currency and payment cost of Payment

The currency stated on some online shopping sites is different from the consumers' country currency. Some consumers do not have the means or account in order to execute the transaction.

The prices stated on the sites do not include hidden costs which are the tax tariff, international fee etc. Example. When the buyer click to purchase a USD15 worth of magazine, however, after the goods reached the buyer, the price may mount up to USD30. This is due to the extra costs eg.tax tariff, international and domestic freight charges being added in.

Therefore, consumers are taken aback by it and find it troublesome to make payment in another currency, thus, they do not want to do online shopping.

Some buyers search online for the currency rate, calculate and convert the currency to their country currency manually. This can be a problem as the daily rate is different and rates vary at different timing of the day.

The present invention overcomes the problem by providing a comprehensive, integrated system whereby buyers can shop at ease and to their convenience.

The advantages of our invention are as follows:

a) Timely arrival of correct goods delivery

A reference number is assigned to each product purchased by the consumer. This is to differentiate the products bought, especially if the consumer purchases a few products. As each product has different reference number, therefore it will be easy to track and check the products.

All purchases transacted by the consumer will be reviewed by the back end operator. The back end operator will order the goods on behalf of the consumer. Once all the products have been received by the back end operator, they will deliver all the correct goods at the same time to consumer.

This ensures the correct goods being delivered to the consumer without delay.

b) Currency payment and costs

The currency shown is automatically converted according to the buyer's billing address. This provides a sense of security to the buyer. When the currency is stated in a foreign currency, buyer tend to be frustrated and there is a need for them to search for conversion rate online, calculate manually to convert costs to their local currency. This takes up time. However, currency is displayed to buyer at a glance.

The cost displayed is a full landed price which includes international and domestic freight charges, tax tariff etc. There are no hidden charges. Therefore, buyers will be able to keep track of the total costs for every transaction more conveniently.

c) Security control

When someone takes on the identity of the account owner, he/she are not able to purchase products at the shopping sites. The products are delivered to the account owner's billing address. Therefore, all products purchased will be delivered and viewed by the account owner. This protects the account owner's account being misused by other users.

These increase buyers' confidence in buying products from foreign manufacturers by providing an escrow system to guarantee privacy safety of account, timely delivery and buyer satisfaction.

d) Browser Emulator Function

The browser emulator function enables the back end operator to buy the product from online merchant more easily.

The browser simulator function caters to the back end operator. It shows the list of URL (Uniform Resource Locator), reference number, quantity, and shipping address being keyed in previously. This enables them to key in the correct URL, thus able to search for the product page correctly and faster. Thus, it increases the efficiency of the work.

4) Prototype

Base on the above description, we have developed a prototype to show how online shopping can work with this technology. We will be more than happy to do a demonstration to show most of what has been described in this paper.

Claims

1. A method of storing, retrieving, and modifying data in a database, consisting the steps of :
   a) Creating the data records, by the user. Each of the data record has a unique identifier. The data records are identified by the user.
   b) Storing the date records, by the user. Unique Identifier and field name is assigned to each of the records and thus storing the records in the appropriate field name.
   c) Retrieving the data records, by the user. The data records are easily searched by using a definable field name and the unique identifier.
   d) Modifying the data records, by the user. After retrieving records, it can be modified and saved for viewing by other users and/or Buyers on the site.

2. The method of claim 1, for the step of creating of data records. The data record is created, by the user, using a specific user-definable language, terms and illustrations.
   At the website, data records are information of the products/services listed. In this case, the user refers to the back-end operators who creates and post up the information. Information is provided to buyers who make decisions to purchase using the information.

3. The method of claim 1, for the step of storing.
   It comprises of unique identifier and field name which is assigned to each data stored. Data stored includes information on the products/services listed on the websites, customers' orders, parsing links, buyer's personal information etc.

4. The method of claim 1, for the step of retrieving data records. Records can be searched by using a specific field name and unique identifier. This enables the retrieval process faster and retrieving the correct specific information. Information retrieved may consists of products availability, features of products/services, buyer's personal information etc.

5. The method of claim 1, for the step of modifying the data records. Records is retrieved and modified by users, when necessary. These records include buyer's personal information, orders of products/services, information of products/services etc.

6. The method and process of allowing the buyer to browse and purchase on the website, which takes only 3 steps. It includes logging on to the website, clicking products to be added to the shopping cart and checking out of the site.

   The network consists of at least one computer-server for communicating with users who is using a browser program on a computer at a location, the method consists the steps of:
   a) Receiving at the computer-server, a transmitted command from a browser program, for the shopping page website.
   b) In response to the transmitted command for a site, it generates and displays the website page and transmits the website to the browser program.
   c) Receiving, at the computer-server, regarding on the selected item from shopping webpage received by the browser program;
   d) Producing a list at the computer server;
   e) Returning the requested command from the computer-server to the browser, by providing the updated list of items when requested;

f) Receiving at the computer-server from the browser program, about the list of selected and confirmed products.

7. A method of supplying items on the website, when it received the requested command. It comprises the steps of :

Accepting and recording the Buyer order when an order is place for a product,

Determining if there is any values in the "cart" field by inspecting the "cart" field,

If there is value in the "cart" field, all the values will be added together.

Values will be converted into the currency according to the country where the buyer resides. Informing the Buyer the pricing information, including tax.

Transmitting information from the computer-server to the browser, about the confirmed purchase order.

Notifying the particular manufacturer that purchase of a product has been made by a particular buyer.

8. For creation of a shopping cart on the network of server and client computing systems. The tools are needed to operate in a server and in a browser at the client systems, the browser generates requests to the server and the server responds with the requested page files to the client systems browser.

There is the continuation of the transmitting, receiving, adding, removing of items to the shopping cart and storing the shopping list, at the computer until the termination by the browser program.

Receiving a request from the browser system, the request will be identified by the system, and thus the selected item will be added by the system, to the shopping cart list.

Adding selected items to the list, the items will be identified by the system. It provides an updated cart list containing the selected items and any previous selected items from earlier add requests.

A delete request is generated and sends the delete request to the system. The delete request contains the selected items from the previously selected items in the cart field.Thus, the cart list contains all items except the selected delete items.

9. The method of claim, further comprising the steps of :

Storing the inventory level of each product in a database. The inventory level refers to the number of items in stock of each product.

Updating the inventory level based on the information given by the manufacturer and according to the information about sales of a particular product from the inventory, and

Restricting sending of information about a product, to the Buyer when the product is out of stock.

10. The method of claim 1, further comprising the steps of

Storing on the database of product values that are available for products, the values comprises size and colour of respective products.

Sending information to a buyer when marketing information about a product is requested, and

Arranging the different options in drop-down menus for viewing and selecting by the Buyer when ordering a product, and

Accepting and recording the Buyer order when an order is place for a product, and

Sending the Buyer order to the manufacturer regarding the purchased product.

11. The method of claim 1, further comprising the step of

Having the English translated version of the marketing information in the database.

Having the translation and storage of the marketing information is needed, for which varieties of other language versions are translated from the English version, thus people of other languages are able to apprehend.

12. The method of claim 1, further comprising the steps of

Generating a specific web page for the personal use of individual buyer, with the detailed information provided to the buyer.

Enabling of the web page with hotlinks for internet communication between the buyers and customer service representatives.

Enabling of the web page with a hotlink to provide automatic parcel tracking information.

Using a list of services panel in one frame that allows the buyer to choose among several choices to request information, the requested information will appear in a second frame for review by the buyer. The information includes list of orders, parcel tracking number (if applicable), and links to manufacturer's websites, customer retention programs, and ways to contact customer service representatives.

The buyer can access to detailed information about the purchased product, related products and services, and other many kinds of information, which answers the customer's enquiries and thus, contributes to customer satisfaction.