METHOD AND APPARATUS FOR PROVIDING AND ACCESSING DATA AT AN INTERNET SITE

Background

The disclosures herein relate generally to accessing an Internet site and more particularly to managing and updating information at the site from a first access point, and multi-level accessing of the information from a second access point.

Various systems have been developed whereby data and information can be accessed by a remote provider and a remote user. In one such system, a remote access server provides a remote user with access to a local computer network. The server receives a user identification string from its communication port, the string having been entered by the remote user at a remote computer which is coupled to the communication port. The string identifies the remote user. The server uses the string to access a database and determine an Internet protocol (IP) address associated with the string. The remote computer needs the IP address to communicate on the local computer network. The database includes a user identification string for each remote user and an IP address for each string. The remote access server sends the IP address to the remote computer via the communication port. The server then allows the remote computer to access the local computer network and to communicate on the local computer network using the IP address.

Another system is a multitask multiuser system which provides for efficient transfer of data from a remote data base to individual subscribers and has particular utility in the distribution of stock market data. A primary provider distributes the incoming data directly to user tasks or to an inquiry provider or a monitor provider. The inquiry provider responds to specific inquiries by users for information in the data base. The monitor provider maintains lists of information which are being monitored by the host computer for individual users. The inquiry provider and the monitor provider do not repeat requests to the remote data base where a similar request is already pending from another user. Data transfer paths between tasks are established by a code module which may be linked to any of the tasks. The transfer paths are established using information from a configuration list and they are monitored by the operating system through a wait list established for each user task. Providers in the system may establish subscriber lists through the code module.

In another application, an authorization mechanism provides authorization information for a client requesting access to a server resource in a server, having a directory server for storing client information required by the server in executing an operation call, including client access rights, and generating a request for an authorization ticket to the server. The request for an authorization ticket includes an identification of the client and an identification of the client information required by the server and is in association with an operation call. The authorization mechanism generates an authorization ticket including the identified information encrypted with an encryption key derived from the password of the server. The authorization ticket is sent to the server and the server decrypts the authorization ticket with the server password and obtains the client information directly including the client access rights. Client information is stored in directory server fields identified by generic field tags. The authorization ticket request identifies client information by tag names identifying the fields, the requested information is stored

in the authorization ticket in fields identified by the tag names, and the server mechanism then reads the client information.

A further application includes a first data processing device (node I) coupled to a first private network and to a firewall server (FWA). Firewall server FWA is in turn coupled to a public network, such as the Internet. A second data processing device (node J) is coupled to a second private network which is coupled to the Internet through a firewall server (FWB). Node I provides a data packet including IP data and a destination address for the intended receiving node J to firewall FWA. Firewall FWA is provided with a secret value and a public value. The firewall FWA obtains a Diffie-Hellman (DH) certificate for firewall FWB and determines the public value from the DH certificate. A transient key is randomly generated and is used to encrypt the data packet to be transmitted by firewall FWA to firewall FWB. The encrypted data packet is then encapsulated in a transmission packet by the firewall FWA. The transmission packet includes an unencrypted destination address for the firewall FWB. Firewall FWA then sends the transmission packet to firewall FWB over the Internet. Upon receipt of the transmission packet from firewall FWA, firewall FWB obtains a DH certificate for firewall FWA and determines the public value from the DH certificate. Firewall FWB decrypts the encrypted data packet received from FWA, thereby resulting in the recovery of the original data sent by node I in unencrypted form to the firewall FWA. The firewall FWB then transmits the decrypted data packet to the receiving node J over the second private network.

Purchasing is a major component of the operation of a business. It involves establishing authorized vendor sources, seeking first time or unusual vendor sources and maintaining vendor relationships. Typically, as strong relationships build and as quantity buying develops, purchasing power can increase and purchasing costs can decrease. A major part of repetitive purchasing is based on purchasing history, i.e. what has been purchased in the past, what options are desired, and what options are available.

An important aspect of repetitive purchasing is the accessibility of purchasing history. A purchaser can maintain records as well as a vendor but this will most likely only reveal what has been purchased in the past. A customer may need to know about available options for anticipated purchases and a vendor may have modified or new products which are of interest to the customer. This can be accomplished by repeated direct contact between purchasing department personnel and vendor sales and accounting or other personnel. Such contact may be accomplished by numerous telephone calls to several sources at the vendor's site.

Information gathered by the purchaser from the vendor then needs to be communicated by purchasing personnel to the person(s) within the organization who requested the information. Additional phone calls and/or meetings may be required before a decision can be made for a definitive purchase. The purchasing agent must then negotiate the best price based on many factors including the nature of the item and the quantity desired.

Therefore, what is needed is an apparatus and method for providing information at a site, continuously managing and updating the site information from a first access point and providing multi-level access to the site information from a second access point.

Summary

One embodiment, accordingly, provides a method and apparatus for accessing and maintaining an Internet site containing information which is continuously updated and managed from a vendor location and includes restricted and unrestricted portions accessible from a buyer location. To this end, an Internet information device includes a web site coupled to a first user intranet point and a second user Internet point. The first user point is coupled for providing multi-level managed information to the web site. The second user point is coupled for providing multi-level user access to the managed information such that a selected password provides user access to all

of the managed information and another selected password provides user access to a limited portion of the managed information.

A principal advantage of this embodiment is that the user at the first point provides continuous updates to the information at the web site which reduces the need for repeated, time consuming direct contact with the user at the second point. In addition, the user at the second point can restrict access to the information at the web site by segregating password access, can reduce the need for repeated, time consuming direct contact with the user at the first point, and can have instant access to the information updates.

Brief Description of the Drawings

Fig. 1 is a diagrammatic view illustrating an embodiment of a network.

Fig. 2 is a diagrammatic view illustrating an embodiment of a web site.

Fig. 3 is a diagrammatic view illustrating an embodiment of a team area of the web page.

Fig. 4 is a diagrammatic view illustrating an embodiment of a store area of the web page.

Fig. 5 is diagrammatic view illustrating an embodiment of a service area of the web page.

Fig. 6 is a diagrammatic view illustrating an embodiment of a secure area of the web page.

Fig. 7 is a diagrammatic view illustrating an embodiment of a multi-access area of the web page.

Detailed Description of the Preferred Embodiment

A network 10, Fig. 1 includes a web site 12 having a web page or several pages coupled to a first user point 14 and a second user point 16. The first user point 14 as used in this context is any terminal on a private network used by a site provider to input managed information to the web site 12. The second user point 16 as used

in this context is any terminal used by a site user via the Internet to access all or part of the managed information at the web site 12.

The site provider at first user point 14, writes to a series of Internet tools, diagrammatically illustrated at 15, and publishes to an internal copy 17 of the web site 12 for pre-production purposes. Ultimately, the site provider publishes to the web site 12. The site user at second user point 16 has access to web site 12 and can also communicate directly via a link 19 with the site provider at first user point 14 via, for example, e-mail for the purpose of submitting orders for goods offered for sale at the web site 12. Additionally, the site provider directly accesses the web site 12 for maintenance purposes, e.g. to access the web site 12 to monitor traffic to the site and the quality of the site.

Web site 12 includes a web page or pages 18, Fig. 2 including customized information to provide customers at second user point 16 with an easier way of doing business with a site provider at first user point 14. Web page 18 resides on the web site 12 behind an unlisted universal resource locator (URL). Users at second user point 16 are provided with user ID's and user passwords for accessing the web page 18.

Web page 18 features a user logo area 20 and a menu bar selection including a provider team area 22, a store area 24, a service and support area 26, a secure area 28, a site information area 30, a browse area 32, a multi-access area 34 and a non-disclosure agreement (NDA) area 36. The web page 18 information listed above in the various areas are maintained current by the site provider by multiple daily updates.

User logo area 20 includes, with the user's permission, a graphical representation of the logo of the user organization. If the user does not have a logo or does not wish for the logo to be used, the user organizations name may be used in text format.

Team area 22, Fig. 3 includes name, address, phone and fax numbers, e-mail links and title of provider team members and a support category into which each team member is classified, e.g. sales, customer service, etc. Data listed in the team area can be changed with add-ons and updates in order to be maintained current. Other information can be provided if desired.

Store area 24, Fig. 4 provides links to user standard system configurations 24a including pricing information and the ability to submit online orders; links to a discount store 24b for additional product information; and links to multiple order status 24c which permits the user to view status and shipping details of open orders. It is also possible to receive shipment e-mail notification automatically, if desired so that the user is prompted when an order is shipped. Store information may include a system category, title, a quote member, a price and a list of options. The store information may be modified by the site provider such as by adding a system category, changing a standard configuration, or changing other data included in the store information.

The service and support information area 26, Fig. 5 features system service tags (SST) 26a which utilizes a five (5) digit system identifier located on a sticker with a bar code on each product. The SST can be entered and information specific to the user's system will be provided. When the SST is entered, an express service code (ESC) 26b which is a unique numeric code, is generated for a user when the user enters the SST at the web site. This will avoid call transfers and menu options so that the user is routed directly to a specialist at the provider site who will provide time help with the user system. A file library 26c functions as a repository of downloads, BIOS updates drivers and utilities for the user system. This allows the user to keep their system up-to-date at their convenience. These files may be grouped by system, file type, name and date posted. An order status function 26d provides current status of individual or multiple orders. Provider staff members can

retrieve order, production and ship dates directly from an internal order management system in real time.

The secure area 28, Fig. 6 includes an account team roster 28a and purchasing reports 28b. The account team roster includes pager links and allows direct user contact with account team provider members. There are four (4) different purchasing reports which are provided and regularly updated. Each report is viewable online or available for download in several formats. An order status and delivery report 28c shows the user detailed information on all orders from pending production status to invoiced status. An order detail by enterprise 28d report shows the detailed information on the units shipped and amount spent by product category for orders invoiced during a month. A summary by enterprise report 28e shows total units and spending by product category for the order invoiced during a month. Finally, a summary by location report 28f shows total units and spending by product category for each location in the user organization and includes only orders invoiced during a month.

The information area 30 includes links to the web site home and tips on how to use the web site as well as a feedback form to permit the user to submit ideas to the provider concerning how to improve the web site.

The browse area 32 provides easy access to the provider home page as well as to select links on the web site which may be of interest to the user.

The multi-access area 34, Fig. 7 has at least two (2) levels of access, each of which is associated with the user ID and password mentioned above. One access area is referred to as a general access user ID and password area 34a and allows users to see everything at the web site except for the secure area 28. The other access area is referred to as a managed access user ID and password area 34b and allows users to see everything at the site including the secure area 28. The managed area may, if desired, be subdivided into multi-level access areas so that a first level managed access user ID and password allows users to see everything at the web site

including a first portion 34c of the secure area 28 and a second level managed access user ID and password allows users to see everything at the web site including the first and a second portion 34c, 34d, respectively, of the secure area 28. Provider team members contact appropriate personnel at the user organization and provide the URL and multi-level ID's and passwords as required for user access to the web site 12. An intranet manager at the user organization can add a link from the second user point 16 to the web site 12 and post the general user ID and password next to the link for web site 12. This will permit anyone at the second user point 16 to access the web site 12 instead of having to recall a URL, user ID and password. The user organization will be responsible for designating appropriate people at the user organization to have the managed user ID and password usually reserved for a select group of users which may be defined by job description, rank, title, etc.

The online NDA 36 is provided each time a user visits web site 12 for the first time. After entering the URL for the organization web page 18, the user will be prompted to view and accept the online NDA 36. Once the NDA 36 is accepted, the user's hard drive at the terminal being used will function so as not to prompt that particular user with the NDA 36 again. However, each time a user accesses the organization web page 18 from a different terminal at second user point 16 for the first time, the user will be prompted to accept the NDA 36, and upon accepting, the terminal being used will function so as not to prompt that particular user with the NDA 36 again.

As it can be seen, the principal advantages of this embodiment are that the web site provides information which is continuously updated by the provider and makes business purchases easier to initiate, manage and control for both the organization user/buyer and the provider/seller and reduces purchasing and maintenance costs for both user and provider. In addition, direct relationships between user and provider are enhanced and supported from pre-sales to post-sales. The provider is able to off-load tasks such as order quoting and order status from the

sales staff so that they can spend more time selling product. The user is encouraged to do more transactions and information gathering online which is more efficient. A competitive advantage to the provider is that the user can conduct business with the provider in an easier, more cost efficient manner. User satisfaction and loyalty is enhanced and new users are attracted to this mode of purchasing from the provider.

Although illustrative embodiments have been shown and described, a wide range of modification, change and substitution is contemplated in the foregoing disclosure and in some instances, some features of the embodiments may be employed without a corresponding use of other features. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the scope of the embodiments disclosed herein.

What is claimed is

1. An Internet information system comprising;

a web site;

a first user point coupled for providing multi-level managed information to the web site;

a second user point coupled for providing multi-level user access to the managed information such that a selected password provides access to a first portion of the managed information and another selected password provides user access to a second portion of the managed information;

wherein the web site includes a web page having customized information from the first user point for users at the second user point; and

wherein the web page is accessible from the second user point via an unlisted universal resource locator, and users at the second user point are provided with at least one user ID and user password.

2. The system as defined in claim 1 wherein the first user point includes a terminal used by a web site provider to input managed information to the web site.

3. The system as defined in claim 2 wherein the second user point includes a terminal used by a web site user to access the managed information at the web site.

4. The system as defined in claim 1 wherein the web page includes a user logo.

5. The system as defined in claim 1 wherein the web site includes a listing of first and second provider team members at the first user point, each of the first and second team members having a respective area of support responsibility, said team members being accessible by users at the second user point.

6. The system as defined in claim 1 wherein the web site includes a listing of standard user configurations including pricing information, such that users at the second user point submit online orders to said first user point for said configurations.

7. The system as defined in claim 6 wherein said users at the second user point access status and shipping data related to open orders received at the second user point.

8. The system as defined in claim 6 wherein users at the second user point are automatically notified of order shipments from the first user point.

9. The system as defined in claim 1 wherein a user at the second user point enters a system identifier which generates a numeric code for routing the user to a specialist at the first user point.

10. The system as defined in claim 1 wherein the users at the second user point access an account team roster for making user contact with an account team provider at the first user point.

11. An Internet information method comprising the steps of:
inputting multi-level information to the web site from a first user point;
updating the multi-level information;
accessing a first portion of the information at the web site through a first level password from a second user point;
accessing second portions of the information at the web site through at least one other level password from the second user point;
including a web page at the web site having customized information from the first user point for users at the second user point; and
accessing the web page by users at the second user point having an unlisted universal resource locator, at least one user ID and at least one user password.

12. The method as defined in claim 11 further comprising the step of:
listing a provider team member roster from the first user point for access by users at the second user point, each of first and second team members having a respective area of support responsibility.

13. The method as defined in claim 11 further comprising the steps of:
listing standard user configurations from the first user point so that users at the second user point can submit online orders to the first user point.

14. The method as defined in claim 11, further comprising the steps of: accessing status and shipping data from the first user point by a user at the second user point.

15. The method as defined in claim 11 further comprising the step of: automatically notifying users at the second user point of order shipments from the first user point.

16. The method as defined in claim 11 further comprising the step of: entering a system identifier at the second user point for generating a numerical code and routing a user at the second user point to a specialist at the first user point.

17. The method as defined in claim 11 further comprising the step of: accessing an account team roster from the second user point permitting a user at the second user point to make direct contact with an account team provider at the first user point.