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A Client And Method For Controlling Communications Thereof

Field of the Invention

The present invention relates to communications in a computer network. In particular, the present invention relates to, but is not necessarily limited by, communications of a client in a client-server system coupled to the Internet and method for controlling communications by the client.

Background

Conventional client-server systems have clients that connect to each other or to servers of the systems using data communications channels. Connecting with such channels enables transmission and retrieval of information by a client from other clients or servers via the Internet. Currently, a common technique to retrieve or to view information is by way of a World Wide Web browser. Using the Web browser, a user of a client can retrieve or view information available on Web pages of another client or a server in the network.

Due to the increasing use of the Internet for commerce, Web pages commonly provide telephone numbers for users to call for assistance or to request more information. Typically, a user who wishes to communicate by voice has to first note down a telephone number and then use a telephone to make a telephone call. However, whilst on the Internet, the action of making the telephone call is often inconvenient to the user when a telephone is not readily available.

The above situation is exacerbated when only one telephone line is available for communications since in such situations, the telephone line is already engaged by a modem to access the Internet. Consequently, the user has to stop accessing the Internet to make the telephone call or to make the telephone call later. This is inconvenient to the user and significantly reduces the likelihood of users making the telephone call. As a result, such users are not likely to proceed with a commercial transaction on the Internet even when all

that is required is a telephone call to confirm or request some basic information needed to complete the commercial transaction.

The above disadvantageous circumstances make the Internet less desirable for commercial enterprises seeking customers. Although additional
5 telephone lines can alleviate this inconvenience, such additional lines can be expensive for a small commercial enterprise or individuals to maintain. Therefore, a need exists for a client and a method for controlling communications that alleviates or overcomes the above disadvantageous circumstances and thereby enables users of a client to complete commercial
10 transactions via the Internet with greater ease and efficiency.

Summary

In accordance with one aspect of the invention, there is disclosed a client for controlling communications in a client-server system coupled to the Internet, said
15 client-server system having a plurality of clients, the client including:

means for detecting at least one user input while the client is coupled to at least one other client via the Internet using at least one data communications channel;

means for establishing a voice communications channel to at least one voice communications device in response to the user input, the voice communications
20 channel including the data communications channel;

means for determining whether the voice communications channel is established;

and

means for controlling communications between the clients in response to the
25 determining, the communications includes voice communications using both the data communications channel and the voice communications channel.

Preferably, the establishing means can include means for providing, at the client, at least one user interface.

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Suitably, the establishing means can include means for coupling said client to said voice communications device via a public switched telephone network.

5 Preferably, the client can further include means for displaying, at the client, one or more user selectable options.

Suitably, the controlling means can further include means for monitoring for one or more additional user inputs associated with actuation of at least one of the user selectable options.

10 Preferably, the client can further include means for generating at least one message in response to the additional user inputs.

Suitably, the controlling means can further include means for activating
15 respective control modules associated with the clients to launch respective Web browsers coupled to the clients in response to the additional user inputs.

20 Preferably, the activating means can further include means for directing, by the control module of the client, browsing by the Web browsers.

Suitably, the client can further include means for relinquishing the directing to the means for directing by the control module of the other client in response to a request from the other client.

25 In accordance with another aspect of the invention, there is disclosed a method for controlling communications in a client-server system coupled to the Internet, said client-server system having a plurality of clients, the method including the steps of:

30 detecting at least one user input while the client is coupled to at least one other client via the Internet using at least one data communications channel;
establishing a voice communications channel to at least one voice

communications device in response to the detecting step, the voice communications channel including the data communications channel;

determining whether the voice communications channel is established;

and

- 5 controlling communications between the clients in response to the checking step, the communications includes voice communications using both the data communications channel and the voice communications channel.

10 Preferably, the establishing step can include the step of providing, at the client, at least one user interface.

Suitably, the establishing step can further include the step of coupling said client to said voice communications device via a public switched telephone network.

- 15 Preferably, the method can further include the step of displaying, at the client, one or more user selectable options.

20 Suitably, the controlling step can further include the step of monitoring for one or more additional user inputs associated with actuation of at least one of the user selectable options.

Preferably, the method can further include the step of generating at least one message in response to the monitoring step.

- 25 Suitably, the controlling step can further include the step of activating respective control modules associated with the clients to launch respective Web browsers coupled to the clients in response to the monitoring step.

30 Preferably, the activating step can further include the step of directing, by the control module of the client, browsing by the Web browsers.

Suitably, the method can further include the step of relinquishing the directing step to the other client in response to a request from the other client.

In accordance with a further aspect of the invention, there is disclosed a
5 computer program product having a computer usable medium having computer readable program code means embodied therein for controlling communications in a client-server system coupled to the Internet, said client-server system having a plurality of clients, the computer program product including:

computer readable program code means for detecting at least one user input
10 while the client is coupled to at least one other client via the Internet using at least one data communications channel;

computer readable program code means for establishing a voice communications channel to at least one voice communications device in response to the user input, the voice communications channel including the data communications
15 channel;

computer readable program code means for determining whether the voice communications channel is established;

and

computer readable program code means for controlling communications
20 between the clients in response to the determining, the communications includes voice communications using both the data communications channel and the voice communications channel.

Preferably, the computer readable program code means for establishing can
25 include computer readable program code means for providing, at the client, at least one user interface.

Suitably, the computer readable program code means for establishing can further include computer readable program code means for coupling said client to said
30 voice communications device via a public switched telephone network.

Preferably, the computer program product can further include computer readable program code means for displaying, at the client, one or more user selectable options.

5 Suitably, the computer readable program code means for controlling can further include computer readable program code means for monitoring for one or more additional user inputs associated with actuation of at least one of the user selectable options.

10 Preferably, the computer program product can further include computer readable program code means for generating at least one message in response to the additional user inputs.

 Suitably, the computer readable program code means for controlling can
15 further include computer readable program code means for activating respective control modules associated with the clients to launch respective Web browsers coupled to the clients in response to the additional user inputs.

 Preferably, the computer readable program code means for activating can
20 further include computer readable program code means for directing, by the control module of the client, browsing by the Web browsers.

 Suitably, the computer program product can further include computer readable program code means for relinquishing the directing to the computer readable
25 program code means for directing by the control module of the other client in response to a request from the other client.

Brief Description of the Drawings

 Preferred embodiments of the invention is described hereinafter with reference
30 to the drawings, in which:

FIG. 1 is a block diagram illustrating a client-server system coupled to the Internet in accordance with the preferred embodiments of the invention;

FIGs. 2a and 2b are flowcharts showing a method for controlling
5 communications by clients of the client-server system of FIG. 1;

FIG. 3 is a flowchart showing control of a voice enabling plug-in for the clients of the client-server system of FIG. 1;

10 FIGs. 4a to 4c are state diagrams illustrating Web browsing by the clients of FIG. 1;

FIGs. 5a to 5d illustrates examples of user interfaces provided by the clients of FIG. 1; and

15 FIG. 6 is a block diagram of an example of a client in the client-server system of FIG. 1.

Detailed Description

A client-server system having a plurality of clients and at least one server, a
20 method and a computer program product for controlling communications by a client are described. In the following description, numerous details are described in detail to provide a more thorough description. It shall be apparent to one skilled in the art, however, that the invention may be practised without such details. In other instances, well-known details have not been described at length so as not to obscure the
25 invention.

A client-server system is a type of computer network in which computers are referred to either as clients or servers. Also, user inputs referred to hereinafter are provided by a user when actuating, for example, a keyboard or a mouse button to select a user selectable option.

30 The advantages of the preferred embodiments of the invention are manifold. One advantage is that any user at a client in the client-server system can communicate

by voice with another user at another client. Providing a voice communications channel between the users enhances browsing in the client-server system compared to conventional client-server systems. Consequently, users of a client in the preferred embodiment of the invention do not require a telephone to communicate with another
5 user of another client. In addition, the users can conveniently call telephone numbers provided by Web pages for assistance or to request for more information without the need for a telephone. Therefore, the likelihood of users calling the telephone numbers increases.

Another advantage of the invention is that the voice communications channel
10 can couple to data communications channels, such as telephone lines, that are used for browsing. Hence, additional telephone lines for voice communications are not required. This alleviates the problem of cost for small commercial enterprises or individuals.

A further advantage of the invention is that control of Web browsing is
15 improved. This improvement arises because a user at a first client can direct the Web browser of a second client by either using the first client or voice communicating with a user at the second client. Consequently, interactive Web browsing between the two users is improved, thereby reducing time when effecting commercial transactions.

20 FIG. 1 illustrates a block diagram of a client-server system 10 coupled to the Internet 12 in accordance with a preferred embodiment of the invention. Communications channels 13,14,15 couple the Internet respectively to two clients 11,16 and a server 17. The system 10 supports a plurality of clients of which only two clients 11,16 are shown as examples. The server 17 includes a storage device 18 for
25 storing information. Each of the clients 11,16 has a control module 20 coupled to control a Web browser 21, a sound card 22 with a speaker 23 and a microphone 24, and a memory 25.

FIG. 1 also illustrates the Internet 12 coupled to at least one Internet
30 telephone gateway 26 and to a public switched telephone network (PSTN) 27 via the gateway 26. As is known in the art, communications channels 28 that couple the

gateway 26 to the Internet 12 are digital channels. However, communications channels 29 that couple the gateway 26 to the PSTN 27 are typically analog channels.

Control of communications between two clients 11,16 via the Internet
5 12 is applied with means that include the control module 20 and a voice enabling plug-in stored in the memory 25. Operation of the control module 20 and the plug-in provides for controlling such communications to thereby enable voice communications between the two clients 11,16 via the Internet.

10 Referring to FIGs. 2a and 2b, a method 30 for controlling communications by either or both of the clients 11,16 is illustrated. Starting at step 31, the control module 20 of, for example, the client 11 detects a user input while coupled to another client 16 via the Internet 12 using communications channels 13,14. In response to the user input, the control module 20 of the client
15 11 proceeds to establish a voice communications channel to the client 16 at step 32. In addition, a user interface is provided at step 32 by the voice enabling plug-in.

The voice communications channel may require the client 11 to connect
20 to a voice communications device such as, for example, a telephone or a telephone answering machine that is associated with the client 16. However, each of the clients 11,16 also has a respective sound card 22 coupled to speaker 23 and microphone 24 that can support voice communications. As shown in FIG. 1, the voice communications channel requires use of communications
25 channels 13, 14, 28 and 29 depending on the voice communications device. For example, a telephone operating in the PSTN 27 requires use of the gateway 26 to convert data signals from the client 11 to analog signals for such a telephone. However, for the sound card 22 of the client 16, the voice communications channel can be routed directly via the Internet 12 and communications channels
30 13,14.

In decision step 33, the control module 20 of the client 11 determines whether the voice communications channel is established. When the voice communications channel is not established because, for example, the voice communications device does not answer or is busy ('No'), then the method 30 proceeds to step 34. At step 34, the user interface displays one or more user selectable options.

In step 35, control of communications by the control module 20 includes monitoring the additional user inputs associated with actuation of the user selectable options. Thus, when voice or email messages are generated after actuation of the user selectable options, the control module 20 of the client 11 transfers such messages to the control module of the client 16. Upon completion of such transfers, processing of the user input detected in step 31 ends.

If the control module 20 of the client 11 determines that the voice communications channel is established ('Yes'), processing continues at step 36. In step 36, the clients 11,16 are then coupled via the voice communications channel. Thereafter, routing of voice communications between the two clients 11,16 involves the Internet 12 and the communications channels 13,14. Whether the PSTN 27 is needed depends on the voice communications device of both clients as explained. Step 36 of method 30 also includes displaying a user selectable option for interactive browsing between the clients 11,16. This option is available for the respective users of the clients 11,16 to activate interactive browsing of the Web.

Following step 36, the control modules 20 of the clients 11,16 checks to determine whether to terminate the voice communications channel at decision step 37. This can occur when the respective users of the clients 11,16 disconnect from the voice communications channel or when the voice communications device has acknowledged receipt of a message. When decision step 37 determines that the voice communications channel is to be terminated ('Yes'),

method 30 proceeds to step 38 in which the control module 20 of the client 11 disconnects the voice communications channel. In addition, step 38 provides for disabling the interactive browsing option and processing of the user input detected in step 31 ends.

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When the control module 20 of the client 11 determines that the voice communications channel is not to be terminated ('No'), method 30 continues at decision step 39. At decision step 39, the control module 20 of the client 11 checks whether a user input corresponding to activation of the interactive
10 browsing option is received. When this user input has not been received ('No'), method 30 loops back to decision step 37.

In decision step 39, if the user input is received to activate interactive browsing ('Yes'), method 30 proceed to step 40 of FIG. 2b. In step 40,
15 respective control modules 20 associated with the clients 11,16 are activated to launch respective Web browsers 21 coupled to the clients 11,16. When launched, method 30 proceeds to step 41 in which the client 11 serves a master client to direct, via its control module 20, the Web browsers 21 of both the clients 11,16 for interactive Web browsing.

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At this point of method 30, the voice communications channel is established and interactive Web browsing is in progress. Method 30 continues from here with the client 11, serving as the master client, controlling communications based on user inputs through the user interface or via other
25 input means such as a mouse, a keyboard or a touch screen.

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Method 30 then continues at decision step 42 in which the control module 20 of the master client checks whether a new Web page is being loaded. If not ('No'), then method 30 loops back and continues checking for a new Web
30 page. Otherwise ('Yes'), method 30 proceeds to step 43 in which an address for the new Web page is sent to the client 16.

After sending the address to the client 16, method 30 provides for checking at decision step 44 whether a request is received from the client 16 to control interactive browsing. When no such request is received ('No'), method
5 30 further checks in decision step 45 whether the interactive browsing is to be terminated. When the user of client 11 wishes to terminate interactive browsing ('Yes'), the control module 20 of the client 11 terminates interactive browsing and disconnects the voice communications channel at step 46. Otherwise ('No'), when interactive browsing is not to be terminated, method 30 loops back to
10 decision step 42.

However, if the request is received from the client 16 in decision step 44, the control module 20 of the client 11 checks to determine at decision step 47 whether to grant the request. If not granted ('No'), method 30 loops back to
15 decision step 42. If granted ('Yes'), the control module 20 of the client 11 relinquishes directing of the Web browsers 20 of both clients 11,16 at step 48 in response to the request. Thereafter, the client 16 then serves as the master client and method 30 loops back to decision step 42.

20 In enabling the method 30 of FIGs. 2a and 2b to control communications, the user input received at step 31 to establish the voice communications channel involves activating a voice communications option. This voice communications option is displayed as a user selectable option on a Web page that is being browsed by the client 11 and is associated with at least
25 one telephone number. When the voice communications option is selected by the user of client 11 during Web browsing, the voice enabling plug-in stored in the memory 25 is activated if available. Otherwise, the voice enabling plug-in can be downloaded from a Web site.

30 Referring to FIG. 3, a method 50 of applying the voice enabling plug-in is shown. Method 50 starts when the user activates the voice communications

option in step 51. Thereafter, the control module of the client 11 checks whether the voice enabling plug-in is available at decision step 52. When not available ('No'), then the user is prompted to download the voice enabling plug-in at step 53 and processing terminates then. The procedures and enabling features of downloading plug-ins are generally known and are therefore not described here. However, when the voice enabling plug-in is available ('Yes'), method 50 proceeds to step 54. In step 54, the control module 20 of the client 11 provides the telephone number that is displayed on the Web page to the voice enabling plug-in. This telephone number may include additional telephone access codes such as a country or area code. The voice enabling plug-in is then activated at step 55 to establish the voice communications channel using the telephone number.

For the interactive browsing of method 30, state diagrams illustrated in FIGs. 4a to 4c show different communications paths between the clients 11,16. In FIG. 4a, the clients 11,16 register with the server 14 via the Internet 12 to form a session group 56. Thereafter, the client 11, serving as the master client, controls interactive Web browsing of the session group as shown in FIG. 4b. In the state diagram of FIG. 4b, the server 14 couples communications between the clients 11,16. However, in the state diagram of FIG. 4c, the clients 11,16 couple directly to each other via the Internet 12 without the need for the server 14.

FIGs. 5a to 5d are illustrative examples of user interfaces provided by the clients 11,16. FIGs. 5a to 5c illustrate a user interface 56 at step 32 of the method 30 and shows status of the establishing of the voice communications channel. FIG. 5c is the user interface 56 when the voice communications channel is busy and therefore cannot be established. FIG. 5d illustrates another user interface that provides a screen key pad 57 to provide the user selectable options. The key pad 57 is designed to be functionally similar to that of a PSTN telephone.

The clients 11,16 in the preferred embodiment of the invention can be implemented using a computer program product that includes, for example, a computer system 70 as shown in FIG. 6. In particular, the control modules 22 can be implemented as software, or computer readable program code, executing on the
5 computer system 70.

The computer system 70 includes a computer 71, a video display 72, and input devices 73, 74. In addition, the computer system 70 can have any of a number of other output devices including line printers, laser printers, plotters, and other
10 reproduction devices connected to the computer 71. The computer system 70 can be connected to one or more other computers via a communications input/output (I/O) interface 75 using an appropriate communications channel 76 such as a modem communications path, an electronic network, or the like. The network may include a local area network (LAN), a wide area network (WAN), an Intranet, and/or the
15 Internet 12.

The computer 71 includes the control module 20, the Web browser 21 and the memory 25. The memory 25 may include random access memory (RAM) and read-only memory (ROM), input/output (I/O) interfaces 75, 77, a video interface 78 and
20 one or more storage devices generally represented by the storage device 79 in FIG. 6.

The video interface 78 is connected to the video display 72 and provides video signals from the computer 71 for display on the video display 72. User inputs to operate the computer 71 can be provided by one or more of the input devices 73,74
25 via the I/O interfaces 75, 77. For example, a user of the computer 71 can use a keyboard as I/O interface 73 and/or a pointing device such as a mouse as I/O interface 74. The keyboard and the mouse provide user inputs to the computer 71. The storage device 79 can consist of one or more of the following: a floppy disk, a hard disk drive, a magneto-optical disk drive, CD-ROM, magnetic tape or any other of a number of
30 non-volatile storage devices well known to those skilled in the art. Each of the

elements in the computer system 71 is typically connected to other devices via a bus 80 that in turn can consist of data, address, and control buses.

5 The method steps of FIGs. 2a, 2b and 3 for controlling Internet browsing in the client-server system 10 are effected by instructions in the software that are carried out by the computer system 70. Again, the software may be implemented as one or more modules for implementing the steps in methods 30 and 50. That is, the control module 20 can be a part of a computer readable program code that usually performs a particular function or related functions.

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In particular, the software may be stored in a computer readable medium, including the storage device 79. The computer system 70 includes the computer readable medium having such software or program code recorded such that instructions of the software or the program code can be carried out. The use of the
15 computer system 70 preferably effects advantageous apparatuses for controlling Internet browsing in the client-server system 10 in accordance with the preferred embodiment of the invention.

The computer system 70 is simply provided for illustrative purposes, and other
20 configurations can be employed without departing from the scope and spirit of the invention. The foregoing is merely an example of the types of computers or computer systems with which the preferred embodiment of the invention may be practised. Typically, the processes of the preferred embodiment are resident as software or a computer readable program code recorded on a hard disk drive (generally depicted as
25 the storage device 79 in FIG. 6) as the computer readable medium, and read and controlled using the control module 20. Intermediate storage of the program code and media content data and any data fetched from the network may be accomplished using the memory 25, possibly in concert with the storage device 79.

30 In some instances, the program may be supplied to the user encoded on a CD-ROM or a floppy disk (both generally depicted by the storage device 79), or

alternatively could be read by the user from the network via a modem device connected to the computer 71. Still further, the computer system 70 can load the software from other computer readable media. This may include magnetic tape, a ROM or integrated circuit, a magneto-optical disk, a radio or infra-red transmission channel between the computer and another device, a computer readable card such as a PCMCIA card, and the Internet 12 and Intranets including email transmissions and information recorded on Internet sites and the like. The foregoing is merely representative of relevant computer readable media. Other computer readable media may be practised without departing from the scope and spirit of the invention.

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The clients 11,16 of the client-server system 10 as described in the above preferred embodiment of the invention advantageously overcome or at least alleviate the disadvantages of conventional client-server systems for Internet browsing. In general, any client 11,16 can communicate with another client using voice communications in addition to data communications. Using the voice communications channel established between the clients 11,16, improvements to Web browsing are provided. Consequently, time and costs to interactively browse the Internet 12 are reduced to improve the likelihood of users using the Internet for commercial transactions.

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Using the voice communications channel provides an additional dimension to a current method of rating popularity of a Web page or a Web site based on the number of hits or 'eye balls' the Web page or the Web site obtains. Advantageously, the voice communications channel in the embodiments of this invention provides an 'ear drum' to a Web page or a Web site so that a hit is counted each time a user activates the voice communications channel. Thus, the voice communications channel provides the additional dimension of an 'ear drum' to rate the popularity of a Web page or a Web site.

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In the foregoing description, clients for a client-server system, a method and a computer program product for controlling communications are described. Only one preferred embodiment is described. However, it will be apparent to one skilled in the

art in view of the preferred embodiment that numerous changes and/or modifications can be made without departing from the scope and spirit of the invention.

Claims

1. A client for controlling communications in a client-server system coupled to the Internet, said client-server system having a plurality of clients, said client including:
- 5 means for detecting at least one user input while said client is coupled to at least one other client via the Internet using at least one data communications channel;
- means for establishing a voice communications channel to at least one voice communications device in response to said user input, said voice communications channel including said data communications channel;
- 10 means for determining whether said voice communications channel is established;
- and
- means for controlling communications between said clients in response to said determining, said communications includes voice communications using both said data communications channel and said voice communications channel.
- 15
2. The client as claimed in Claim 1, wherein said establishing means includes means for providing, at said client, at least one user interface.
- 20
3. The client as claimed in Claim 2, wherein said establishing means further includes means for coupling said client to said voice communications device via a public switched telephone network.
- 25
4. The client as claimed in Claim 3, and further including means for displaying, at said client, one or more user selectable options.
5. The client as claimed in Claim 4, wherein said controlling means further includes means for monitoring for one or more additional user inputs associated with actuation of at least one of said user selectable options.
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6. The client as claimed in Claim 5, and further including means for generating at least one message in response to said additional user inputs.

5 7. The client as claimed in Claim 5, wherein said controlling means further includes means for activating respective control modules associated with said clients to launch respective Web browsers coupled to said clients in response to said additional user inputs.



10 8. The client as claimed in Claim 7, wherein said activating means further includes means for directing, by said control module of said client, browsing by said Web browsers.

15 9. The client as claimed in Claim 8, and further including means for relinquishing said directing to said means for directing by said control module of said other client in response to a request from said other client.

10. A method for controlling communications in a client-server system coupled to the Internet, said client-server system having a plurality of clients, said method including the steps of:

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detecting at least one user input while said client is coupled to at least one other client via the Internet using at least one data communications channel;

establishing a voice communications channel to at least one voice communications device in response to said detecting step, said voice communications channel including said data communications channel;

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determining whether said voice communications channel is established; and

controlling communications between said clients in response to said determining step, said communications includes voice communications using both said data communications channel and said voice communications channel.

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11. The method as claimed in Claim 10, wherein said establishing step includes the step of providing, at said client, at least one user interface.

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12. The method as claimed in Claim 11, wherein said establishing step further includes the step of coupling said client to said voice communications device via a public switched telephone network.

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13. The method as claimed in Claim 12, and further including the step of displaying, at said client, one or more user selectable options.

14. The method as claimed in Claim 13, wherein said controlling step further includes the step of monitoring for one or more additional user inputs associated with actuation of at least one of said user selectable options.

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15. The method as claimed in Claim 14, and further including the step of generating at least one message in response to said monitoring step.

5 16. The method as claimed in Claim 14, wherein said controlling step further includes the step of activating respective control modules associated with said clients to launch respective Web browsers coupled to said clients in response to said monitoring step.



10 17. The method as claimed in Claim 16, wherein said activating step further includes the step of directing, by said control module of said client, browsing by said Web browsers.

15 18. The method as claimed in Claim 17, and further including the step of relinquishing said directing step to said other client in response to a request from said other client.

19. A computer program product having a computer usable medium having computer readable program code means embodied therein for controlling communications in a client-server system coupled to the Internet, said client-server system having a plurality of clients, said computer program product including:

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computer readable program code means for detecting at least one user input while said client is coupled to at least one other client via the Internet using at least one data communications channel;

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computer readable program code means for establishing a voice communications channel to at least one voice communications device in response to said user input, said voice communications channel including said data communications channel;

computer readable program code means for determining whether said voice communications channel is established;

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and

computer readable program code means for controlling communications between said clients in response to said determining, said communications includes voice communications using both said data communications channel and said voice communications channel.

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20. The computer program product as claimed in Claim 19, wherein said computer readable program code means for establishing includes computer readable program code means for providing, at said client, at least one user interface.

25

21. The computer program product as claimed in Claim 20, wherein said computer readable program code means for establishing further includes computer readable program code means for coupling said computer program product to said voice communications device via a public switched telephone network.

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22. The computer program product as claimed in Claim 21, and further including computer readable program code means for displaying, at said client, one or more user selectable options.

5 23. The computer program product as claimed in Claim 22, wherein said computer readable program code means for controlling further includes computer readable program code means for monitoring for one or more additional user inputs associated with actuation of at least one of said user selectable options.



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24. The computer program product as claimed in Claim 23, and further including computer readable program code means for generating at least one message in response to said additional user inputs.

15 25. The computer program product as claimed in Claim 23, wherein said computer readable program code means for controlling further includes computer readable program code means for activating respective control modules associated with said clients to launch respective Web browsers coupled to said clients in response to said additional user inputs.

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26. The computer program product as claimed in Claim 25, wherein said computer readable program code means for activating further includes computer readable program code means for directing, by said control module of said client, browsing by said Web browsers.

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27. The computer program product as claimed in Claim 26, and further including computer readable program code means for relinquishing said directing to said computer readable program code means for directing by said control module of said other client in response to a request from said other client.

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