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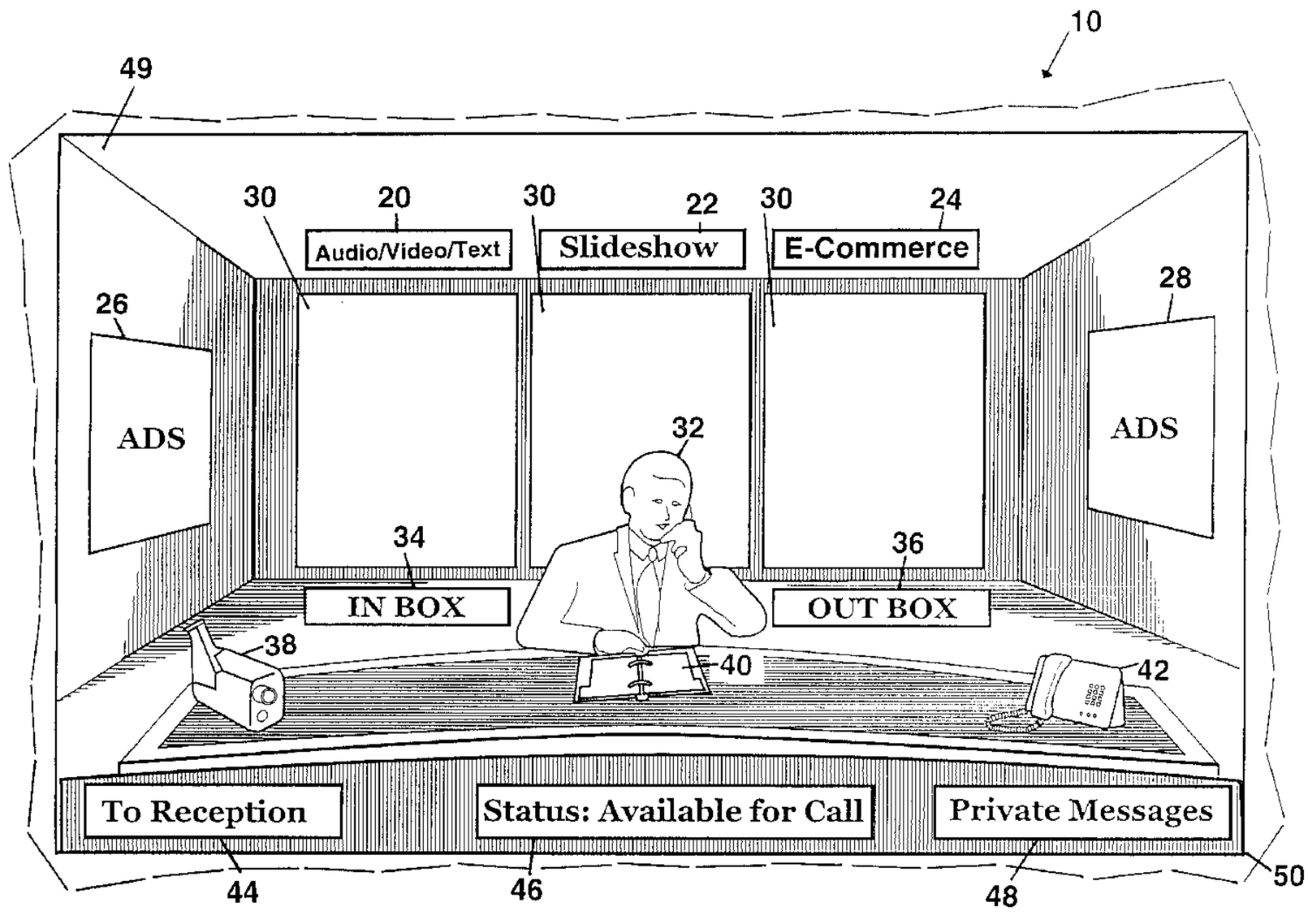
(54) **INTERFACE-UTILISATEUR GRAPHIQUE DE BUREAU VIRTUEL**

(54) **VIRTUAL OFFICE GRAPHICAL USER INTERFACE**



(57) The invention relates generally to a plurality of graphical user interfaces used in conjunction with the Internet where one of the graphical user interfaces is a virtual office graphical user interface that integrates communication processes.

ABSTRACT

The invention relates generally to a plurality of graphical user interfaces used in conjunction with the Internet where one of the graphical user interfaces is a virtual office graphical user interface that integrates communication processes.

VIRTUAL OFFICE GRAPHICAL USER INTERFACE

FIELD

The invention relates generally to graphical user interfaces used in conjunction with the Internet, more particularly to a virtual office graphical user interface that integrates communication software.

BACKGROUND OF THE INVENTION

Personal computers have quickly put computing power in the hands of millions of individuals. Through the internet, all of this computing power can be harnessed to allow people to communicate and share data in ways which could not be comprehended a mere 20 years ago. The commercial implications of all this connectivity and information transfer are astounding. The advent of e-commerce, videoconferencing, Internet telephone and a host of other products and services have provided pathways of communication between individuals and corporations. However, there still exist serious impediments to efficient and effective use of the computers and the Internet.

Traditionally, users have been unwilling, and in many cases, incapable of learning the details to adequately operate multiple software programs. Often, the software manufacturers themselves are to blame for this unwillingness

as every program requires different commands and utilizes different screens to accomplish the same tasks.

Perhaps the sector most affected by the diversity of the software programs is business users. For business users, the most expensive component of the computer system is the time they spend using it. Time spent learning a variety of programs or simply how to set up and run a single program, is time that could be spent on other more profitable activities. In general, business users want a system, and an interface, which allows quick and easy access to a variety of programs that perform different functions with minimal complexity and a short learning period.

There is a need to provide an effective means for integrating Internet programs, services and communication tools to make them easily accessible to the business user. The present invention offers such a system for integrating a variety of Internet programs, services and communication tools into a virtual office user interface.

SUMMARY OF THE INVENTION

The present invention provides for a method of integrating communication tools including videoconferencing, voice communication, text communication and multimedia presentation all within a single graphical user interface.

The method of the present invention is in response to the need for a simple system that allows inexperienced users to efficiently, and effectively, utilize communication tools all within a single user interface.

When a user visits the Online Office web site, the virtual office graphical user interface determines if the user has previously visited the site. If the user has not previously visited the site, they are greeted by a multimedia presentation describing the site. If the user has previously visited the site then they are taken directly to a reception area. Upon entering the reception area, visitors (guests and members) can look up businesses or businesspersons in a variety of directories using a number of search criteria. In particular, the visitor can search for a business or businessperson by entering their phone number into the search box. The Online Office web site allows each online office to be referenced by a URL address based on their business phone number. If the business or businessperson the visitor is seeking is found in the directory, the visitor may be directed to a virtual office, a web site or provided with detailed contact information. While at the reception desk, a visitor may login as a member or as a guest. Both guests and members may visit the virtual office of any member. A member of the site has their own virtual office whereas a guest is a true visitor to the site, as they do not have an office, but

access the site to visit the virtual offices of the members. From the reception area of the web site members have the option of modifying their virtual office and guest have the option of setting up a new virtual office.

If a visitor is directed to a virtual office, they are greeted by a graphical user interface displaying an office. Within the office there is a picture of the office owner, a cityscape of the city where the office owner is located, a number of picture frames on the walls and several buttons which may provide functions such as Inbox, Outbox, Slideshow, Audio, Video, Text or E-commerce. In addition, within the displayed office there is a telephone icon to initiate a real-time Internet telephone call with the office owner, a video camera icon to initiate a real-time videoconference with the office owner and a diary book icon to initiate a real-time textual conference with the office owner. A display in the virtual office indicates whether the office owner is available to be contacted directly via video, voice or text.

When a member enters their own virtual office, they have an office and a portal page. The member may customize the design of their office and the content of their portal page. The content, layout, button titles and colour scheme are just

examples of the many options that are available to be changed by the member who owns the virtual office (the office owner).

In addition the member can set up or customize their own portal page to display news headlines, stock quotes, local weather, etc. When logged onto the portal page, the office owner is able to accept or refuse requests for Internet telephone calls, videoconferences and text communication initiated by a visitor to the virtual office.

It is an object of the invention to integrate a variety of communication processes into a single graphical user interface.

It is a further object of the invention to incorporate the communication processes of Internet telephone, videoconferencing and real-time text communication (chat) into the graphical user interface.

BRIEF DESCRIPTION OF THE DRAWINGS

Many objects and advantages of the present invention will be apparent to those of ordinary skill in the art when this specification is read in conjunction with the attached drawings wherein like reference numerals are applied to like elements and wherein:

Fig. 1 is a diagrammatic representation of a member's online office;

Fig. 2 is a decision tree that outlines the steps in software when a visitor accesses the online office website;

Fig. 3 is a diagrammatic representation of the reception desk user interface;

Fig. 4 is a decision tree that outlines the steps in software when a visitor accesses the reception desk;

Fig. 5 is a decision tree that outlines the steps in software when a visitor enters the conference room;

Fig. 6 is a decision tree that outlines the steps in software when an advertiser wishes to setup an advertisement;

Fig. 7 is a decision tree that outlines the steps in software when a visitor wishes to become a member and setup a new virtual office;

Fig. 8 is a decision tree that outlines the steps in software when a visitor clicks on a selection in a member's online office;

Fig. 9 is a decision tree that outlines the steps in software when a visitor clicks on the inbox/outbox button;

Fig. 10 is a decision tree that outlines the steps in software when a visitor clicks on the telephone;

Fig. 11 is a decision tree that outlines the steps in software when a visitor clicks on the video camera; and

Fig. 12 is a decision tree that outlines the steps in software when a visitor clicks on the diary.

DETAILED DESCRIPTION OF THE INVENTION

Referring to **Fig. 1**, a typical virtual office **10** has an image of the office owner **32** and a plurality of rear windows **30** that display a cityscape image representative of the location of the office owner. The cityscape image in the rear windows **30** may be a static photograph, a photograph updated periodically or a live video feed from a location within the city chosen by the office owner. The functionality of the virtual office **10** is provided through a series of buttons **20**, **22**, **24**, **34**, **36**, **44** and **58**, and objects **26**, **28**, **38**, **40** and **42**.

To enter a virtual office **10**, a visitor accesses the online office website through the Internet. A visitor will

typically access the online office website by entering the URL (Uniform Resource Locator) into their Internet browser.

Referring to **Fig. 2**, when a visitor arrives at the online office website (step **50**), the visitor's system will be queried (step **52**) and system information will be retrieved (step **54**). The system information retrieved at step **54** is used at step **56** to determine if the visitor has previously accessed the online office website. If the visitor is a new visitor to the site, then at step **58**, the visitor is shown a presentation outlining the features of the online office website. When the presentation has completed, at step **60** an indicator is placed on the visitor's system to denote that the visitor has accessed the online office website.

If an indicator is found on the visitor's system, whether it has been placed there during this visit or a prior visit, then at step **62** the visitor is directed to the reception desk user interface **80** (see **Fig. 3**) of the online office web site and the reception desk user interface **80** is initiated (step **64**). At step **66**, the visitor is directed to the location of the opening screen of the reception desk user interface **80**.

Referring to **Figs. 3** and **4**, at step **110**, the visitor is directed to the location of the opening screen of the

reception desk user interface **80** and, at step **112**, the visitor is presented with the reception desk user interface **80**. The functionality of the reception desk user interface **80** is delivered through clicking on one of the functions located either on the reception desk **108** or within the reception desk user interface **80**. At step **114**, if the visitor has not clicked on an item, then the reception desk user interface **80** simply waits (step **116**) until the visitor clicks. If the reception desk user interface **80** detects a click, then the location of the click determines the action to be carried out. If the visitor clicks on one of the posters **86** or **88** (step **150**), then at step **152** the visitor is linked to the website or web page of the advertiser.

To receive help, the visitor simply clicks on the receptionist **90** (step **118**) and at step **120** the visitor is taken to a help screen. Similarly, the visitor may also access help by clicking on the help link **106** (step **118**) and be taken to the help screen (step **120**).

If the visitor clicks on the watercooler link (step **122**), then at step **124**, the visitor is taken to the watercooler room. The watercooler room is a chat room consisting of a number of themed rooms. A chat room involves real-time communication between two or more users. Once the chat has been initiated, users type text on the keyboard,

that text will appear in the watercooler room for all users to see.

At step **126**, when the visitor has clicked on the Conference Room link, then at step **128**, the visitor is taken to the conference room. Referring to **Fig. 5**, at step **220** the visitor enters the conference room and at step **222** the visitor is prompted for identification information. Identification information may include a login, password and credit card information. Credit card information may be required as the services offered in the conference room are each a pay-per-use session. At step **224**, the entered information is evaluated to determine if it is valid and at step **226**, if the information is not valid, the visitor is prompted to correct or complete the information. If the entered information is valid then at step **228**, the visitor is prompted to select one of the sessions. The user may choose one of Multi-user Videoconference (step **230**), Collaborative White-Boarding (step **232**), Multi-User web tour (step **234**), or exit the Conference Room (step **236**). If the visitor chooses one of the sessions, then at step **238** the visitor is prompted to invite attendees to the chosen session and at step **240**, the session is initiated. Once the session has been completed, at step **242** the session is terminated and the visitor is returned to the reception desk (step **244**).

While at the reception desk, the visitor can search for a business or a businessperson. The search can be carried out in many different ways depending on the criteria the visitor users. The visitor may click on the white pages link **98** (step **130**) where at step **132** they will be taken to a directory and prompted to enter the name of a business or businessperson. The visitor may also click on the yellow pages link **100** (step **134**) where at step **136** they will be taken to a directory and prompted to enter a category name under which they wish to find a business or businessperson. Further, the visitor may click on the green pages link **102** (step **138**) where at step **140** they will be taken to a directory and prompted to enter a geographical location where they wish to find a business or businessperson.

Perhaps the easiest way of searching for a business or businessperson, the visitor may enter a phone number into the search box **92** on the reception desk user interface **80**. The online office web site employs a phone number URL addressing scheme so that businesses and businesspersons can be uniquely identified with a internet address corresponding to their telephone number. Therefore entering the phone number into the search box **92** allows the visitor to immediately link to the business' or businessperson's web page.

When the visitor has found the business or businessperson for which they were searching, they may be presented with a variety of information. If the business or businessperson has a virtual office at the online office web site, then the visitor will be linked to that virtual office. If the business or businessperson does not have a virtual office then the visitor may be linked to a web site or simply presented with detailed contact information. In this way, the online office website can be used not only to house the virtual offices of businesses and businesspeople but it can also be used as a directory to find most any business.

If a visitor wishes to setup an advertisement to be shown on the online office website, they would click on the advertiser setup link under the menu icon **104** (step **154**). The visitor would then be taken to the advertiser setup page (step **156**) where, referring to **Fig. 6**, the advertiser setup would start (step **160**). At step **162**, the advertiser would be prompted for identification information. At step **162**, the visitor can setup an advertising account or simply access an existing account. At step **164**, it is determined if the entered information is valid and complete. If the information is not valid, then at step **166** the visitor is prompted to complete the information. If the visitor wishes to complete the information, they are returned to step **162** otherwise they are taken to step **182** and returned to the

reception area. At step **168** the visitor is prompted to enter contact and billing information. At step **170**, it is determined if the entered information is valid and complete. If the information is not valid, then at step **172** the visitor is prompted to complete the information. If the visitor wishes to complete the information, they are returned to step **168** otherwise they are taken to step **182** and returned to the reception area. If the entered information is valid, then at step **174** the visitor can import an advertisement, create an advertisement or modify an existing advertisement. At step **176**, it is determined if the advertisement setup is valid and complete. If the advertisement setup is not valid, then at step **178** the visitor is prompted to complete the setup. If the visitor wishes to complete the setup, they are returned to step **174** otherwise they are taken to step **182** and returned to the reception area. If the advertisement setup is valid, then at step **180** the advertisement is submitted and ready to be displayed on the online office web site and the visitor is returned to the reception area (step **182**).

If a visitor wishes to setup a virtual office, they would click on the office setup link **94** (step **142**). The visitor would then be taken to the member setup page (step **144**) where, referring to **Fig. 7**, the member setup would start (step **190**). At step **192**, the visitor would be prompted for identification information. At step **192**, the visitor can

setup a new virtual office or simply access an existing virtual office. At step **194**, it is determined if the entered information is valid and complete. If the information is not valid, then at step **196** the visitor is prompted to complete the information. If the visitor wishes to complete the information, they are returned to step **192** otherwise they are taken to step **212** and returned to the reception area. At step **198** the visitor is prompted to enter contact and billing information. At step **200**, it is determined if the entered information is valid and complete. If the information is not valid, then at step **202** the visitor is prompted to complete the information. If the visitor wishes to complete the information, they are returned to step **198** otherwise they are taken to step **212** and returned to the reception area. If the entered information is valid, then at step **204** the visitor can import objects, create a virtual office and modify an existing virtual office. At step **206**, it is determined if the virtual office setup is valid and complete. If the virtual office setup is not valid, then at step **208** the visitor is prompted to complete the setup. If the visitor wishes to complete the setup, they are returned to step **204** otherwise they are taken to step **212** and returned to the reception area. If the advertisement setup is valid, then at step **210** the virtual office design is submitted and ready to be accessed at the online office web site and the visitor is returned to the reception area (step **212**).

From the menu icon **104** on the reception desk user interface **80**, a member can login to their portal page. The portal page offers a broad array of resources and services such as news headlines, stock quotes, weather, and search engines. When logged onto the portal page, the member can accept or refuse visitors' requests for a videoconference, an Internet telephone call and a real-time text communication (chat). The member can also send and receive text messages from the portal page. Further, the member's portal page can be customized to modify the content, layout and colour scheme.

A member can access their account information by clicking on the account information link **96** (step **146**), where at step **148** they will be taken to a login screen. After logging in, the member can change addresses, billing information and services.

Referring to **Fig. 8**, if the visitor is directed to the virtual office of a business or businessperson (step **250**), then at step **252**, the virtual office user interface **10** is initiated. As described earlier, clicking on one of a plurality of buttons and objects provides the functionality of the virtual office user interface **10**. The virtual office user interface **10** waits for the visitor to click on an item

(steps **254** & **256**). If the virtual office user interface detects a click on an item (step **254**), the location of the click determines the function performed. If the visitor clicks on an inbox **34** or outbox **36** button (step **258**), then at step **260** the inbox/outbox process is initiated. If the visitor clicks on the telephone **42** (step **262**), then at step **264** the Internet telephone process is initiated. If the visitor clicks on the video camera **38** (step **266**), then at step **268** the videoconference process is initiated. If the visitor clicks on the diary **40** (step **270**), then at step **272** the Internet chat process is initiated. If the visitor clicks on the slideshow button **22** (step **274**), then at step **276** a slideshow presentation process is initiated. If the visitor clicks on the audio/video/text button **20** (step **278**), then at step **280** a presentation process is initiated. If the visitor clicks on the E-commerce button **24** (step **282**), then at step **284** the E-commerce process is initiated. If the visitor clicks on the private messages button **48** (step **286**), then at step **288** the secure messaging process is initiated. If the visitor clicks on one of the advertisements **26** or **28** (step **290**), then at step **167** the visitor is directed to the advertiser's site. If the visitor clicks on the to reception button **44** (step **294**), then at step **296** the reception desk user interface **80** is initiated.

If the visitor clicks on the inbox **34** or outbox **36** buttons, then at step **260** the inbox/outbox process is initiated. Referring to **Fig. 9**, at step **300**, a new window is opened and the inbox/outbox process is started. At step **302**, the visitor is prompted to upload files, download files, or exit the inbox/outbox process. If the visitor exits the inbox/outbox process, then at step **322**, they are returned to the member's virtual office. If the visitor chooses to upload files (step **304**), then the visitor selects those files they wish to upload (step **306**). At step **308**, the chosen files are uploaded to the online office web site and at step **310**, the uploaded files are e-mailed to the office owner's account. If the user chooses to download files (step **312**) then at step **314** the visitor chooses the files to download and at step **316**, the chosen files are downloaded to the visitor's computer. After uploading or downloading, the visitor is given the choice of exiting, uploading files or downloading files (step **320**). If the visitor chooses to exit, they are returned to the member's virtual office (step **322**). If the visitor chooses to upload or download files, they are returned to steps **304** and **312** respectively.

For the Internet telephone, videoconference and real-time text communication services are implemented as entirely Java-based processes. Java-based processes are used because they offer the advantage of allowing any visitor to the

online office web site to be able to instantly communicate with the office owner without needing to download and install a program or browser plug-in. Additionally, the services will operate peer-to-peer thereby allowing the data to flow directly from the visitor's machine to the office owner's machine without having to travel through intermediary hardware servers.

If the visitor clicks on the telephone **42** (step **262**), then at step **264** the Internet telephone process is initiated. Referring to **Fig. 10**, a new window is opened and the Internet telephone process is started (step **390**). At step **392**, the status of the virtual office owner is queried to determine if they are available to accept an Internet telephone call. If the virtual office owner is unavailable to receive an Internet telephone call, then at step **394**, a message is displayed to the visitor indicating the status of the virtual office owner and the visitor is returned to the virtual office user interface **10** (step **406**). If the virtual office owner is available to receive an Internet telephone call, then at step **396**, the Internet telephone software is started. At step **398**, the office owner is queried to determine if they wish to accept the request for an Internet telephone call. If the office owner denies the request then a message is displayed to the visitor (step **394**) and they are returned to the office owner's virtual office (step **406**). If the office

owner accepts the request for the Internet telephone call, then an Internet telephone call is initiated (step **400**). When the conversation between the visitor and the office owner has ended, the Internet telephone call is terminated (step **402**) and the Internet telephone software and window are closed (step **404**). At step **406**, the visitor is returned to the virtual office user interface **10**.

If the visitor clicks on the video camera **38** (step **266**), then at step **268** the Internet videoconference process is initiated. Referring to **Fig. 11**, a new window is opened and the Internet telephone process is started (step **410**). At step **412**, the status of the virtual office owner is queried to determine if they are available to accept an Internet videoconference. If the virtual office owner is unavailable to participate in an Internet videoconference, then at step **414**, a message is displayed to the visitor indicating the status of the virtual office owner and the visitor is returned to the virtual office user interface **10** (step **426**). If the virtual office owner is available to participate in an Internet videoconference, then at step **416**, the Internet telephone software is started. At step **418**, the office owner is queried to determine if they wish to accept the request to participate in an Internet videoconference. If the office owner denies the request then a message is displayed to the visitor (step **414**) and they are returned to the office

owner's virtual office (step **426**). If the office owner accepts the request to participate in the videoconference, then an Internet videoconference is initiated (step **420**). When the conference between the visitor and the office owner has ended, the Internet videoconference is terminated (step **422**) and the Internet videoconference software and window are closed (step **424**). At step **426**, the visitor is returned to the virtual office user interface **10**. Note that the videoconference described above is a one-way videoconference. That is, the visitor can see the office owner but the office owner cannot see the visitor. This eliminates the need for a visitor to have a digital camera in order to participate in a videoconference. If a two-way videoconference is desired, the parties can go to the conference room.

If the visitor clicks on the diary **40** (step **270**), then at step **272** the Internet chat process is initiated. Referring to **Fig. 12**, a new window is opened and the Internet chat process is started (step **340**). At step **342**, the status of the virtual office owner is queried to determine if they are available to participate in an Internet chat. If the virtual office owner is unavailable to participate in an Internet chat, then at step **344**, a message is displayed to the visitor indicating the status of the virtual office owner and the visitor is returned to the virtual office user interface **10** (step **456**). If the virtual office owner is

available to participate in an Internet chat, then at step **346**, the Internet telephone software is started. At step **348**, the office owner is queried to determine if they wish to accept the request for an Internet chat. If the office owner denies the request then a message is displayed to the visitor (step **344**) and they are returned to the office owner's virtual office (step **356**). If the office owner accepts the request for an Internet chat, then an Internet chat is initiated (step **350**). When the conversation between the visitor and the office owner has ended, the Internet chat is terminated (step **452**) and the Internet telephone software and window are closed (step **454**). At step **456**, the visitor is returned to the virtual office user interface **10**.

When a visitor clicks on the audio/video/text button **20** or the slideshow button **22**, (steps **278** and **274** respectively) a presentation process is initiated. The presentation process will open a new window and display the appropriate presentation (step **276** and **280**). When the presentation has finished, the process will end and the window will be closed.

Similarly, when a visitor clicks on the e-commerce button **24** (step **282**), then at step **284** the e-commerce process is initiated. The e-commerce process will allow the visitor to purchase goods, services and shares from an office owner. The transactions will be administered by the online office

web site thereby removing the burden and overhead associated with an e-commerce web site from the office owners.

If the visitor clicks on the private messages button **48** (step **286**), then at step **288** the private messaging process is initiated. The private messaging process allows authenticated visitors to leave and retrieve messages for an office owner.

When the visitor to the virtual office has finished all of the business they intend to conduct, they may leave the virtual office user interface **10** by entering a new URL in their browser or by clicking on the to reception button **44** (step **294**) to return to the reception desk user interface 80 (step **296**). Once the visitor leaves the online office website, they will automatically be logged off regardless of whether they are a guest to the website or a member.

The functions described above as being incorporated into the virtual office are merely used as examples and are not to be interpreted as limiting the scope of the possible processes that may be available. For example, the button within the online office could function to initiate news retrieval, stock quotes, software downloads, and weather reports.

The advantages of using the virtual office are its simplicity and effectiveness. The virtual office integrates a wide variety of communication tools into a single user interface making them accessible by simply pointing and clicking. The layout of the virtual offices is intuitive thereby easing the anxiety of new or unsophisticated users.

The virtual office owes its effectiveness to the directory features it incorporates. When a potential client searches the Internet looking for a particular person, product or service, they will likely find the online office site. As a member of the site, members have a greater chance of being found or referenced through the online office.

Although the present invention has been described in detail with reference to one preferred embodiment thereof, it will be clearly understood that this is by way of illustration only. Many variations and alternative embodiments of the invention will now be apparent to those skilled in the art, and are not to be excluded from the scope of the invention, which is to be determined only by the appended claims, as set forth below.

THE INVENTION CLAIMED IS:

1. A method for using a computer to integrate communication processes into a graphical user interface, comprising:

a) displaying said graphical user interface;

b) selecting a plurality of graphical and textual images to display within said graphical user interface; and

c) associating communication processes with each of said graphical and textual images;

wherein said communication processes include a real-time textual chat process and one of an Internet videoconferencing process and an Internet telephone process.

2. The method according to claim 1, wherein said communication processes include another of said Internet videoconferencing process and said Internet telephone process.

3. The method according to claim 2, wherein said Internet videoconferencing process, said Internet telephone process and said real-time textual chat process are Java-based processes.

4. The method according to claim 1, wherein said graphical and textual images are associated with corporate presentations.

5. The method according to claim 4, wherein said graphical user interface further includes displaying a three dimensional rendering of an office having:

a) a back wall and two side walls; and

b) a plurality of windows.

6. The method according to claim 5, wherein said graphical user interface further includes displaying:

a) a plurality of advertising posters; and

b) a desk, a video camera, a telephone and a diary book.

7. The method according to claim 6, wherein said advertising posters provide Internet links to web pages.

8. The method according to claim 5, wherein said plurality of windows display one of a cityscape or one of said corporate presentations wherein said corporate presentations include a video presentation, a slideshow presentation and a text presentation.

9. The method according to claim 5, wherein selecting said video camera initiates said Internet videoconferencing process.

10. The method according to claim 5, wherein selecting said telephone initiates said Internet telephone process.

11. The method according to claim 5, wherein selecting said diary book initiates said real-time textual chat process.

12. The method according to claim 1, wherein a reception desk graphical user interface is implemented in conjunction with said graphical user interface.

13. The method according to claim 12, wherein said reception desk graphical user interface includes:

a) help facilities;

b) searching facilities; and

c) advertising posters.

14. The method according to claim 13, wherein said searching facilities include a database with URLs (Uniform Resource Locators) having a portion that represents a telephone number.

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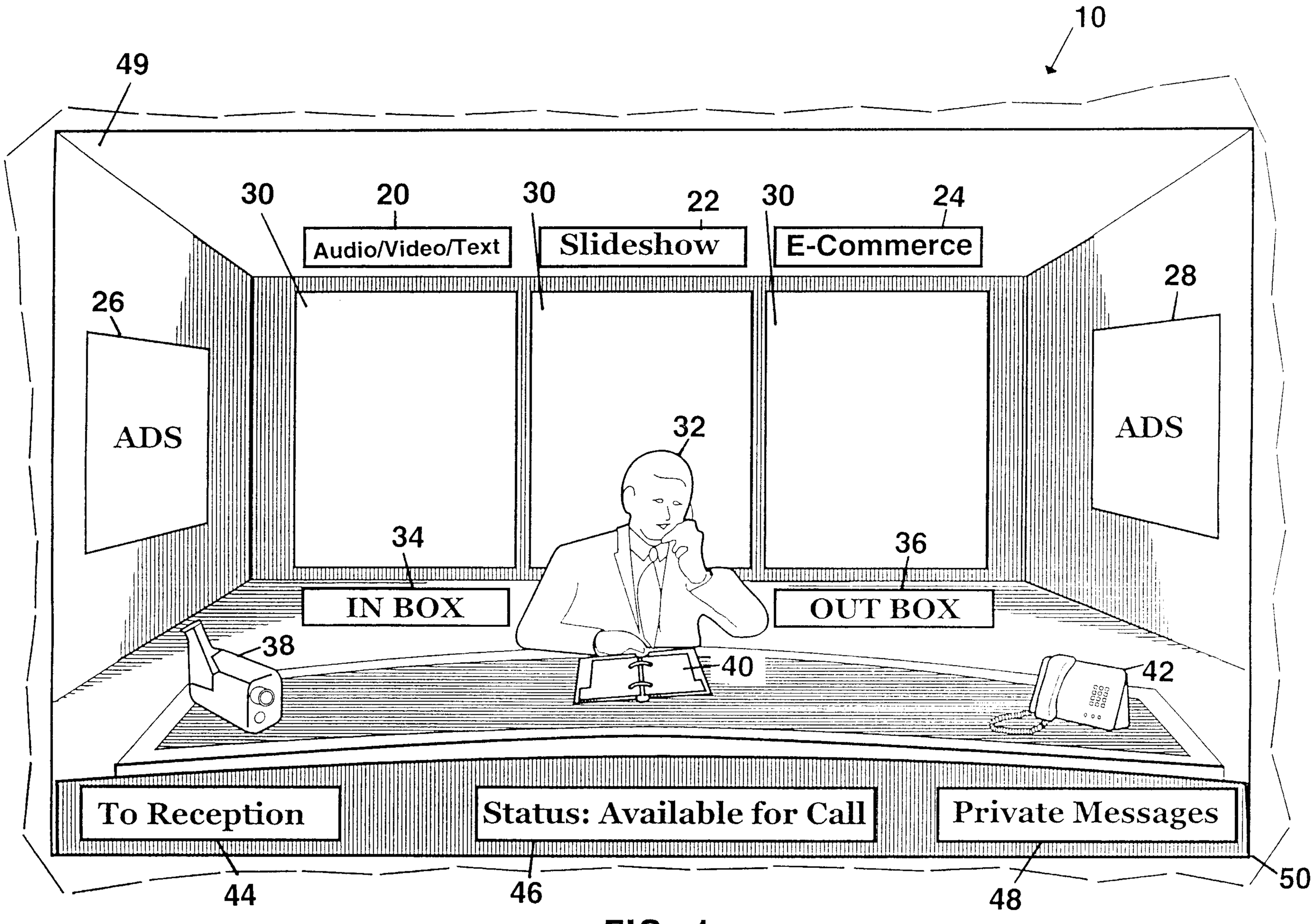


FIG. 1

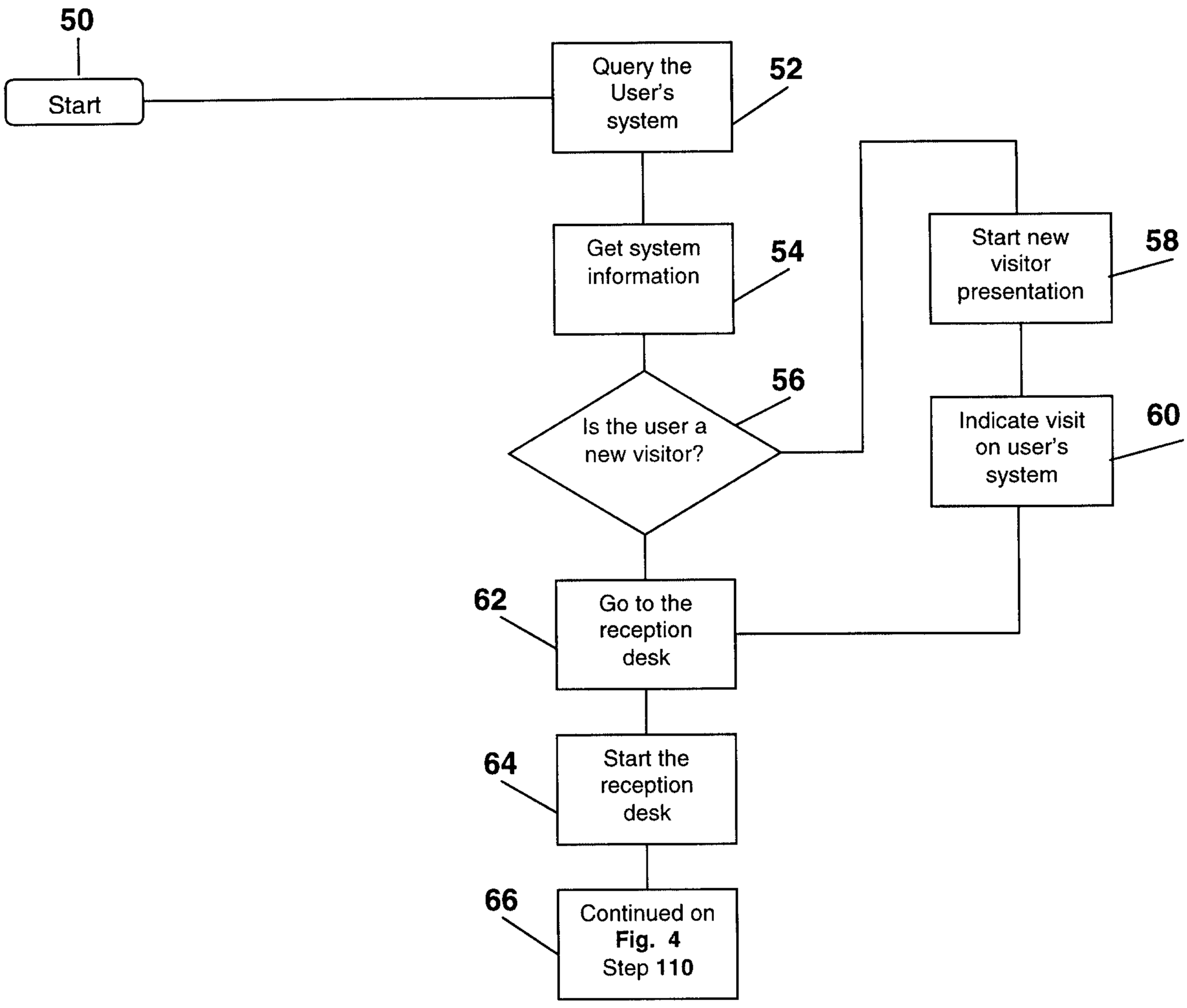

50
Start
Query the User's system
52
Get system information
54
Is the user a new visitor?
56
Start new visitor presentation
58
Indicate visit on user's system
60
62
Go to the reception desk
64
Start the reception desk
66
Continued on Fig. 4 Step 110

Fig. 2

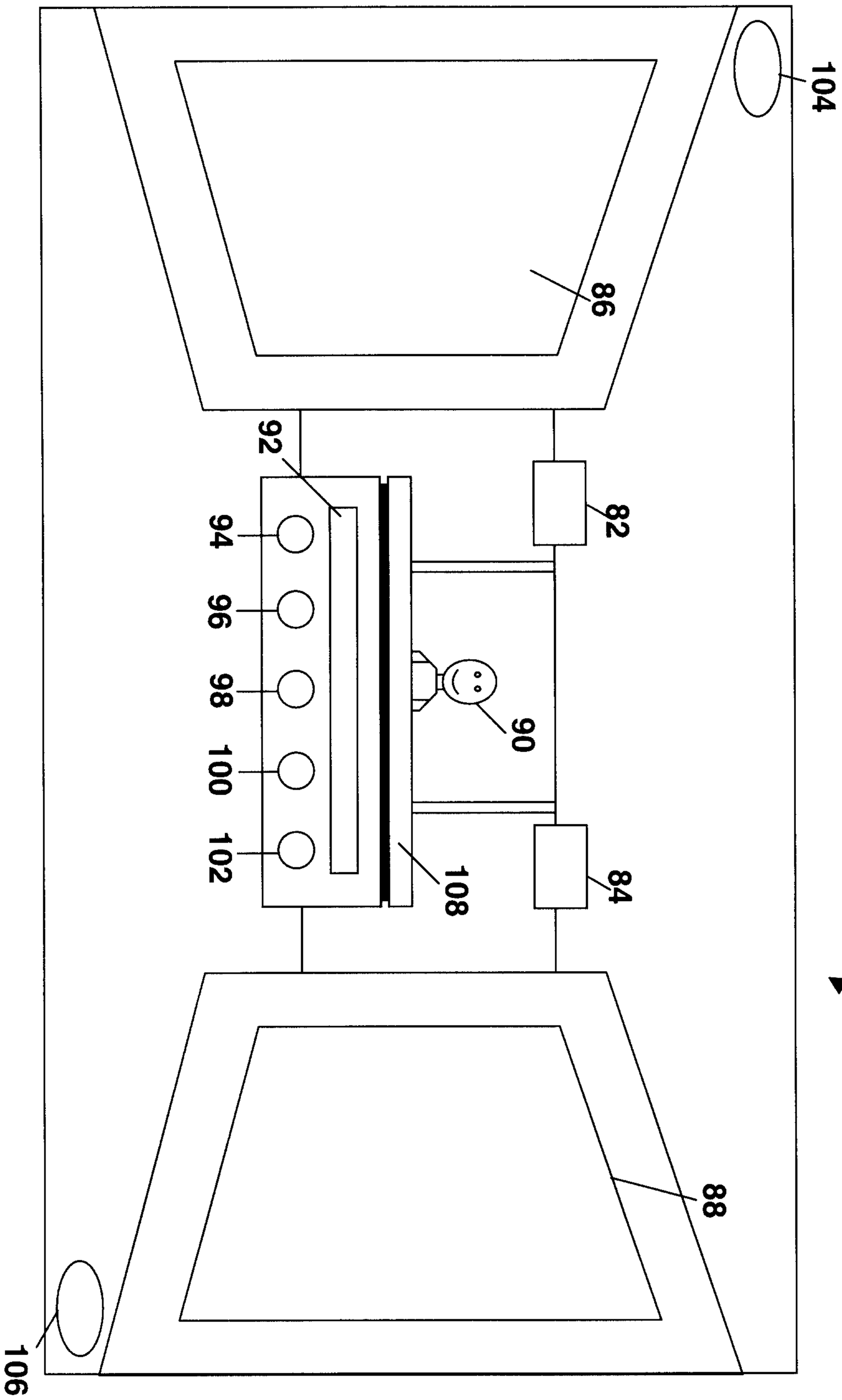


Fig. 3

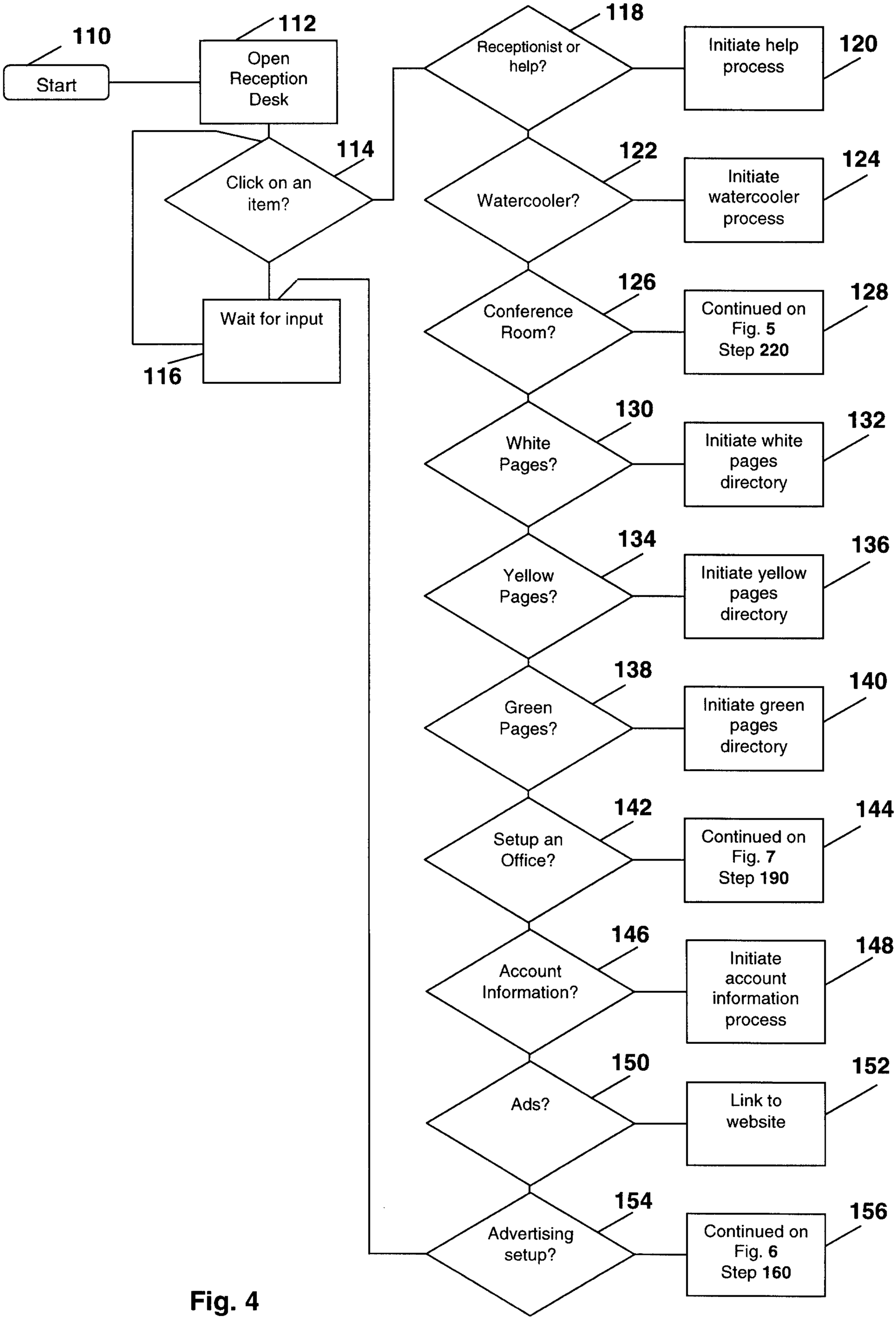

110
Start
112
Open Reception Desk
114
Click on an item?
116
Wait for input
118
Receptionist or help?
120
Initiate help process
122
Watercooler?
124
Initiate watercooler process
126
Conference Room?
128
Continued on Fig. 5 Step 220
130
White Pages?
132
Initiate white pages directory
134
Yellow Pages?
136
Initiate yellow pages directory
138
Green Pages?
140
Initiate green pages directory
142
Setup an Office?
144
Continued on Fig. 7 Step 190
146
Account Information?
148
Initiate account information process
150
Ads?
152
Link to website
154
Advertising setup?
156
Continued on Fig. 6 Step 160

Fig. 4

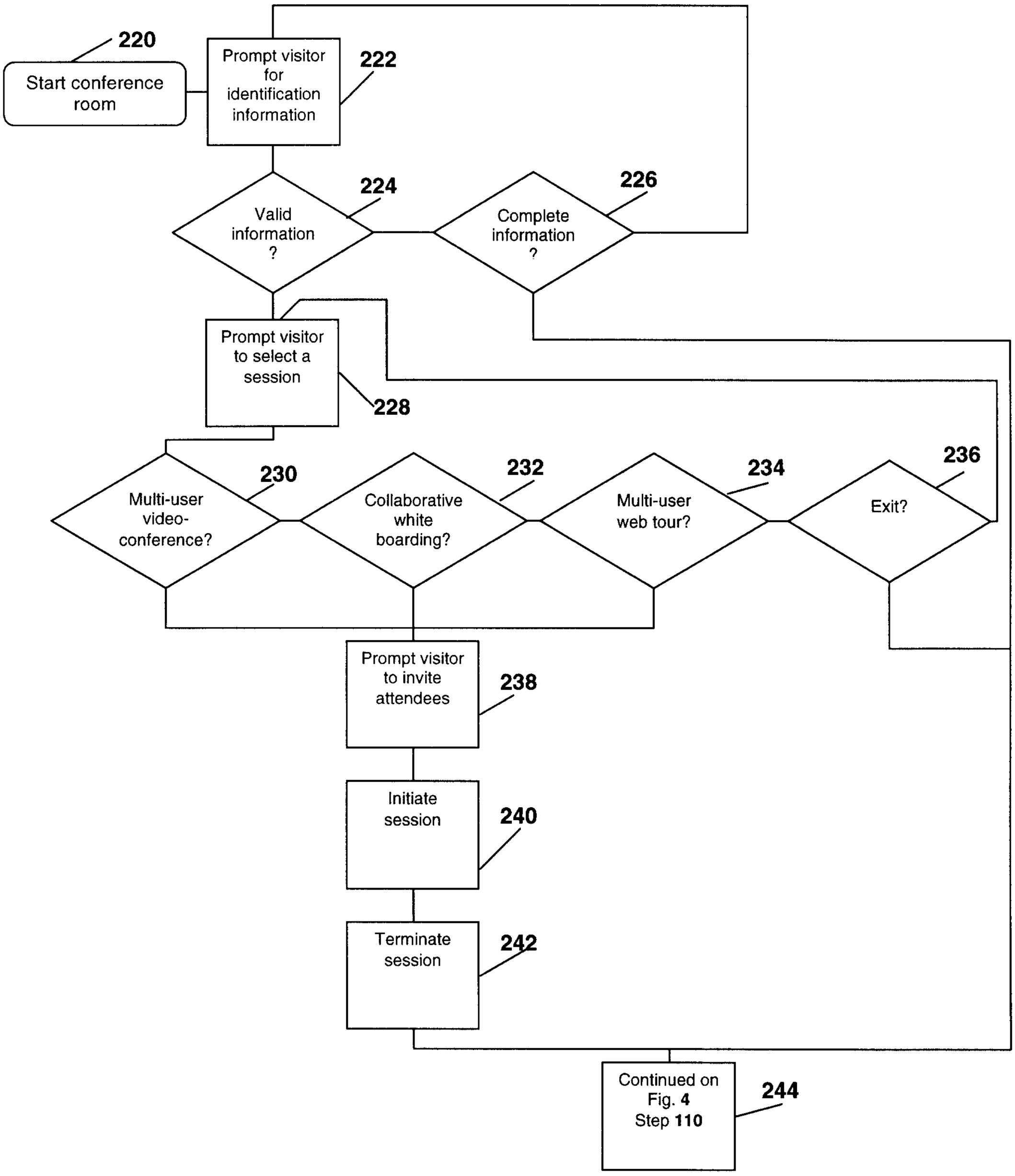

220
Start conference room
Prompt visitor for identification information
222
Valid information ?
224
Complete information ?
226
Prompt visitor to select a session
228
Multi-user video-conference?
230
Collaborative white boarding?
232
Multi-user web tour?
234
Exit?
236
Prompt visitor to invite attendees
238
Initiate session
240
Terminate session
242
Continued on Fig. 4 Step 110
244

Fig. 5

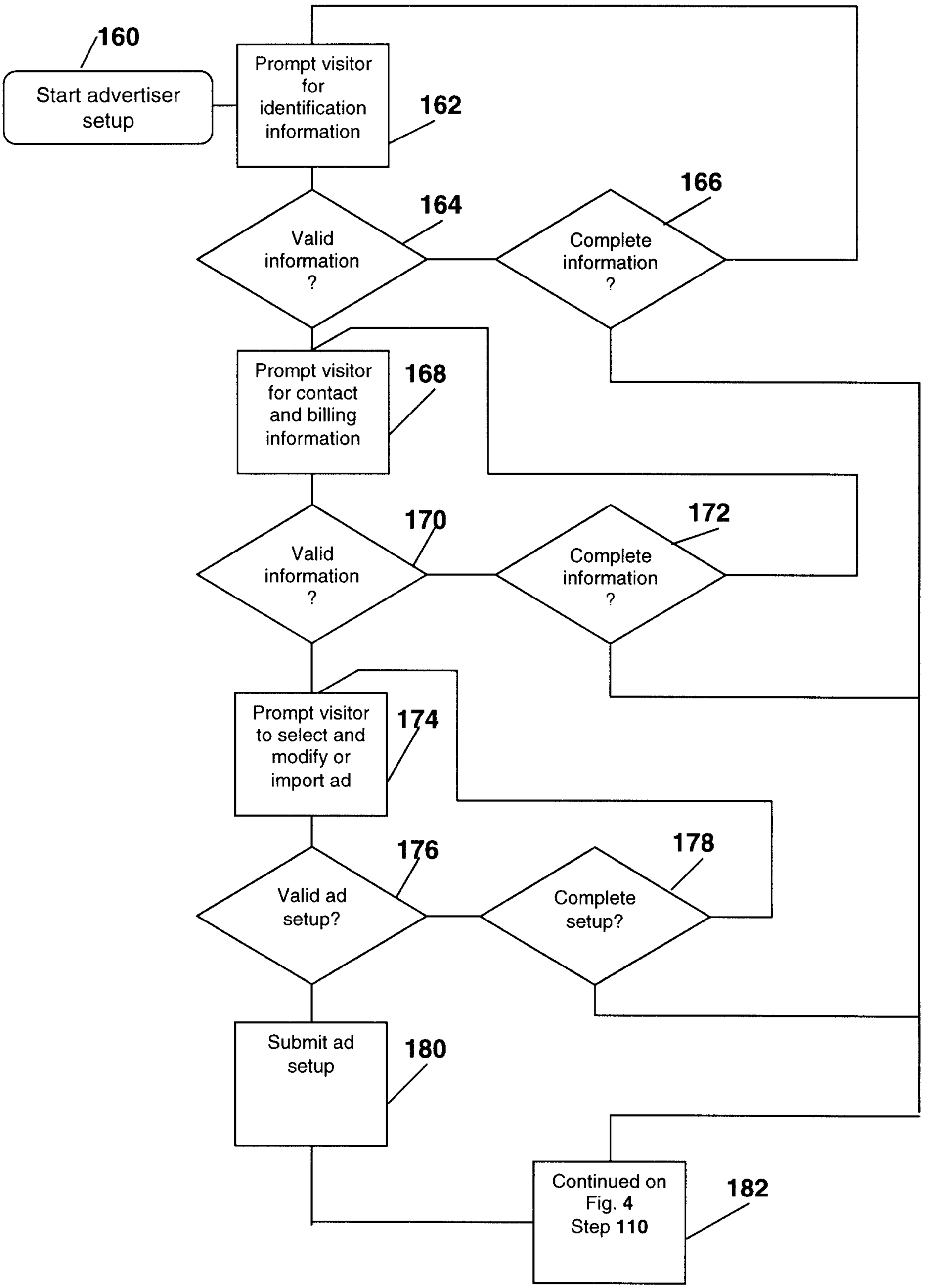

160
Start advertiser setup
Prompt visitor for identification information
162
164
Valid information ?
166
Complete information ?
Prompt visitor for contact and billing information
168
170
Valid information ?
172
Complete information ?
Prompt visitor to select and modify or import ad
174
176
Valid ad setup?
178
Complete setup?
Submit ad setup
180
Continued on Fig. 4 Step 110
182

Fig.6

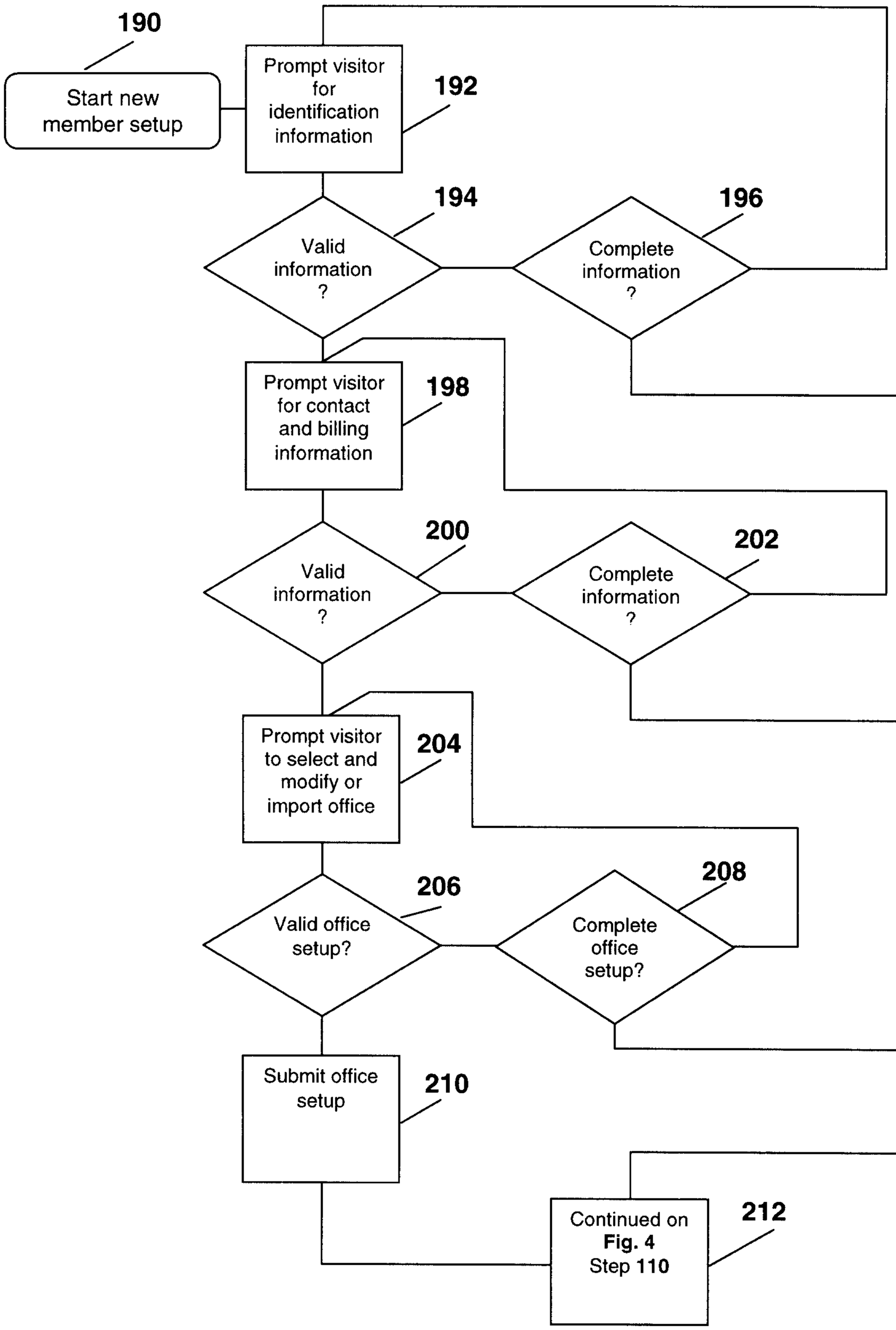

190
Start new member setup
Prompt visitor for identification information
192
194
Valid information ?
196
Complete information ?
Prompt visitor for contact and billing information
198
200
Valid information ?
202
Complete information ?
Prompt visitor to select and modify or import office
204
206
Valid office setup?
208
Complete office setup?
Submit office setup
210
Continued on Fig. 4 Step 110
212

Fig. 7

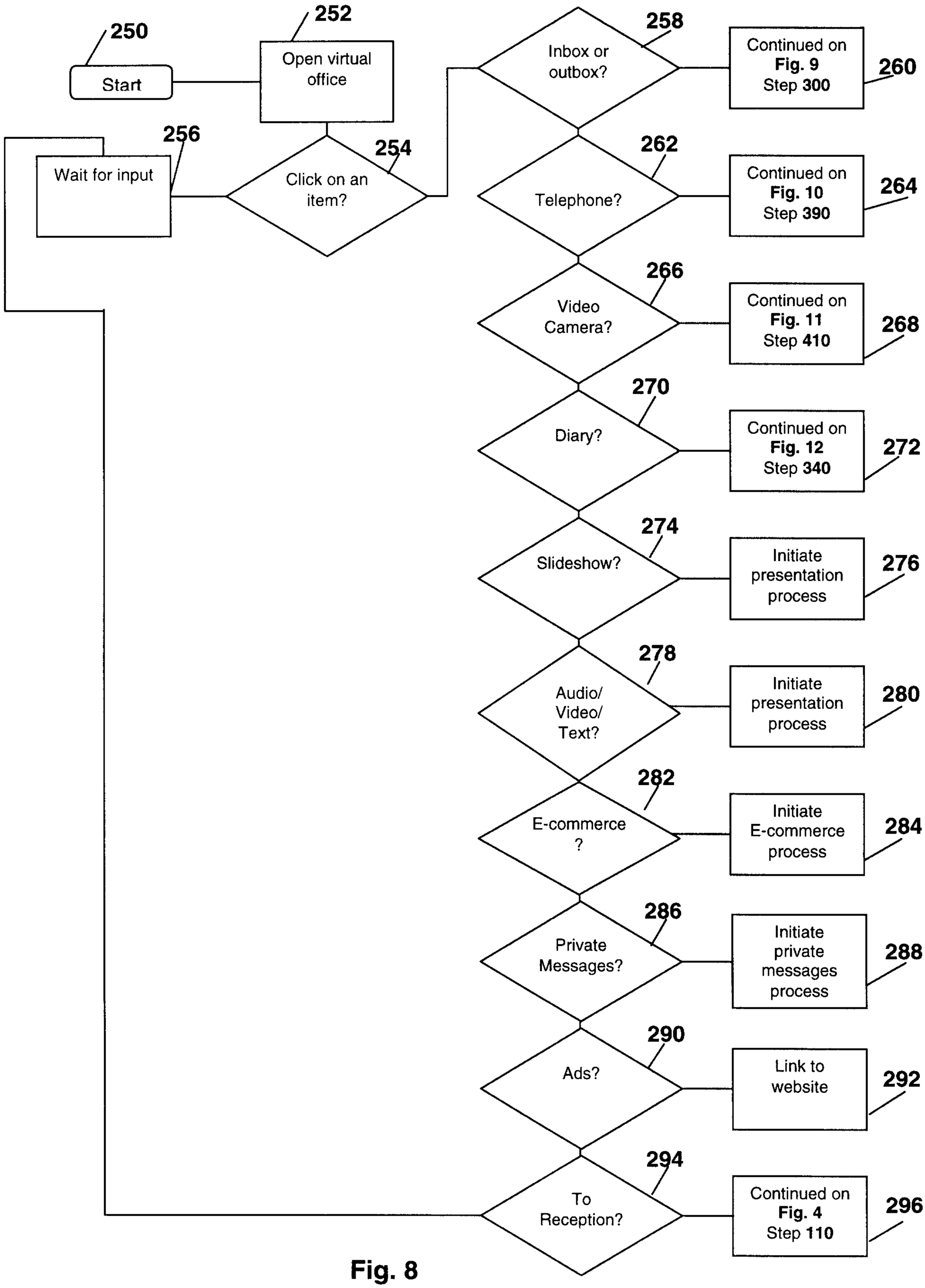

250
Start
252
Open virtual office
254
Click on an item?
256
Wait for input
258
Inbox or outbox?
Continued on Fig. 9 Step 300
260
262
Telephone?
Continued on Fig. 10 Step 390
264
266
Video Camera?
Continued on Fig. 11 Step 410
268
270
Diary?
Continued on Fig. 12 Step 340
272
274
Slideshow?
Initiate presentation process
276
278
Audio/ Video/ Text?
Initiate presentation process
280
282
E-commerce ?
Initiate E-commerce process
284
286
Private Messages?
Initiate private messages process
288
290
Ads?
Link to website
292
294
To Reception?
Continued on Fig. 4 Step 110
296

Fig. 8

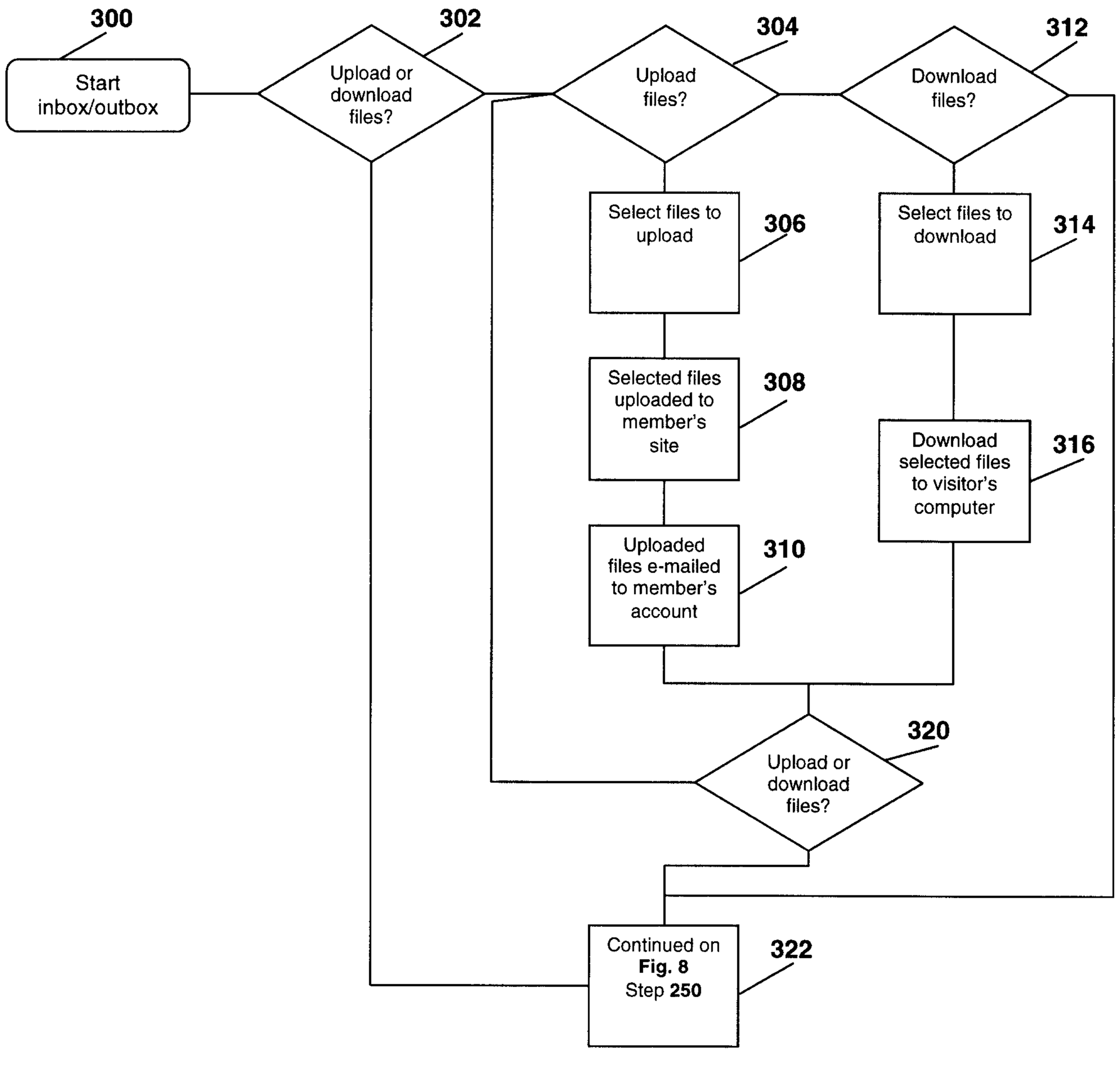

300
Start inbox/outbox
302
Upload or download files?
304
Upload files?
312
Download files?
Select files to upload
306
Select files to download
314
Selected files uploaded to member's site
308
Download selected files to visitor's computer
316
Uploaded files e-mailed to member's account
310
320
Upload or download files?
Continued on Fig. 8 Step 250
322

Fig. 9

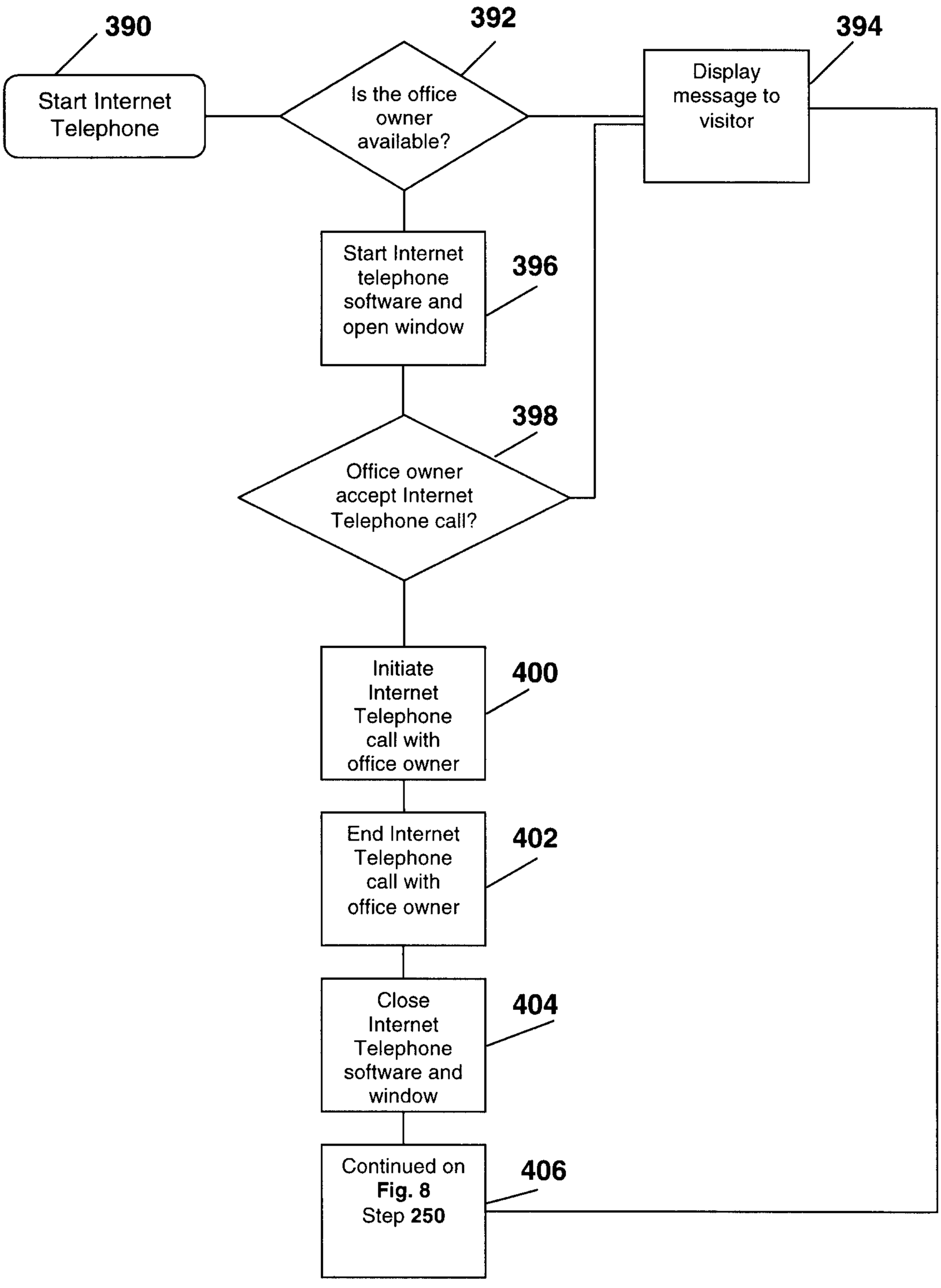

390
Start Internet Telephone
392
Is the office owner available?
394
Display message to visitor
396
Start Internet telephone software and open window
398
Office owner accept Internet Telephone call?
400
Initiate Internet Telephone call with office owner
402
End Internet Telephone call with office owner
404
Close Internet Telephone software and window
406
Continued on Fig. 8 Step 250

Fig. 10

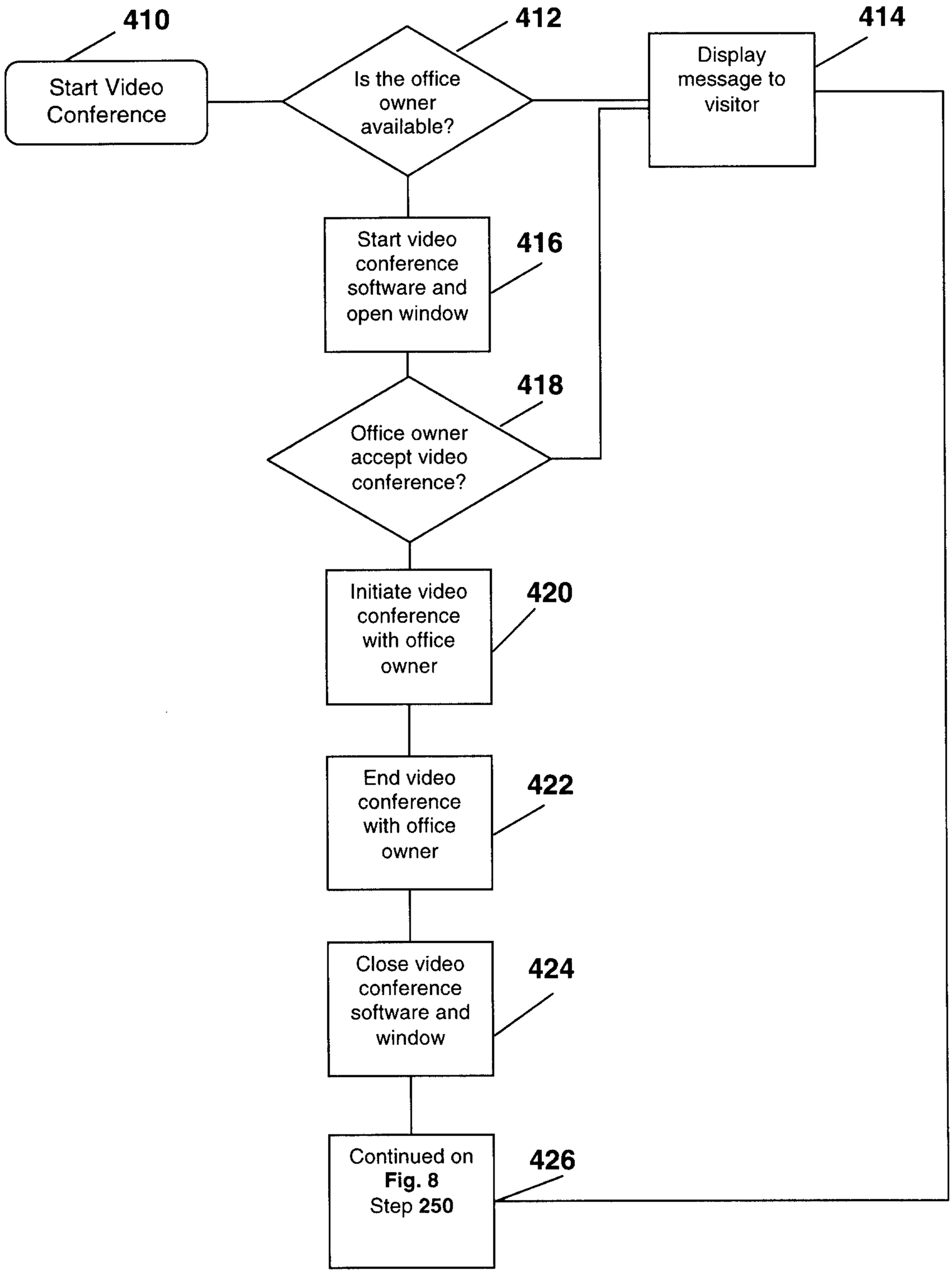

410
Start Video Conference
412
Is the office owner available?
414
Display message to visitor
416
Start video conference software and open window
418
Office owner accept video conference?
420
Initiate video conference with office owner
422
End video conference with office owner
424
Close video conference software and window
426
Continued on Fig. 8 Step 250

Fig. 11

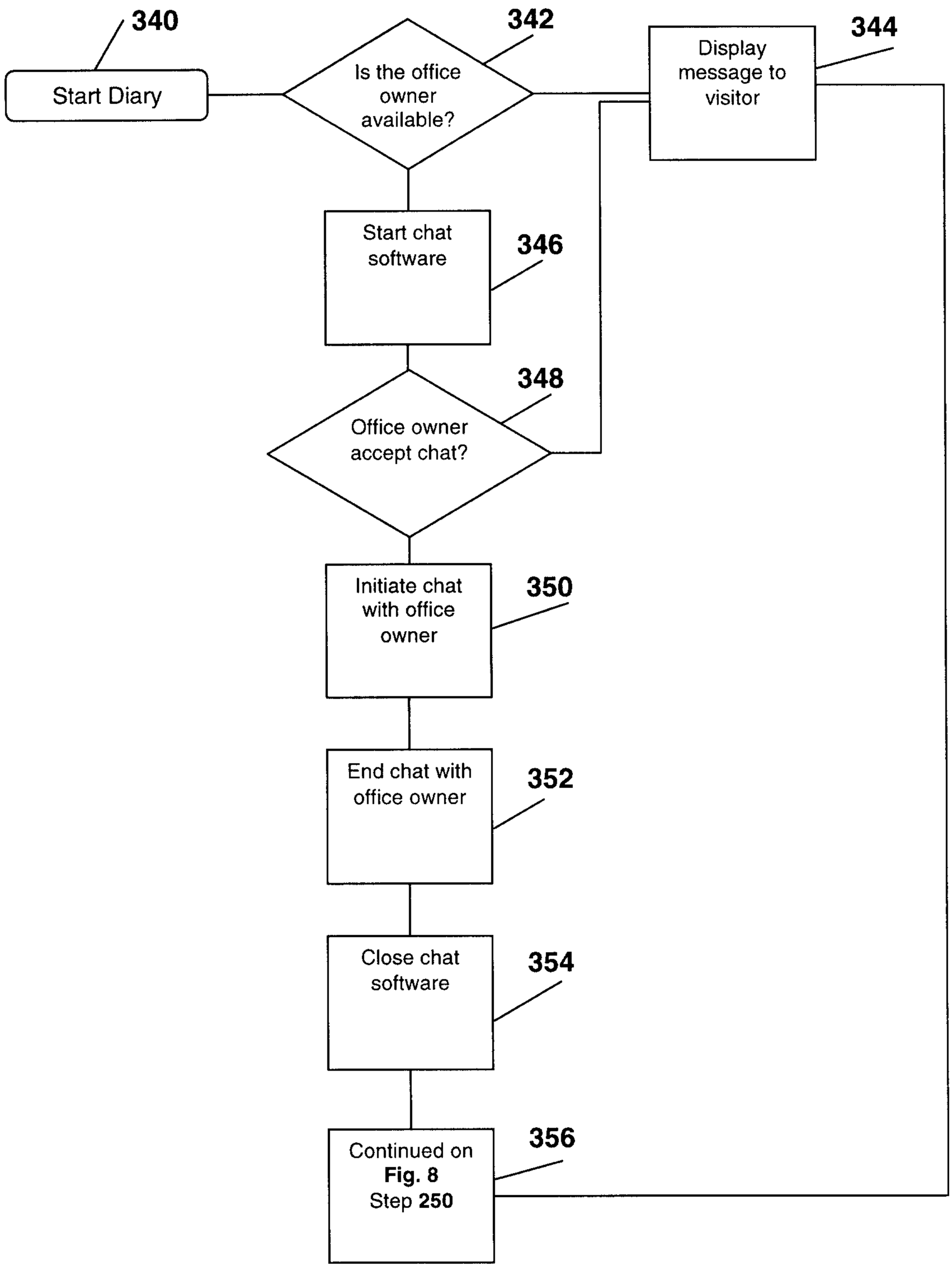
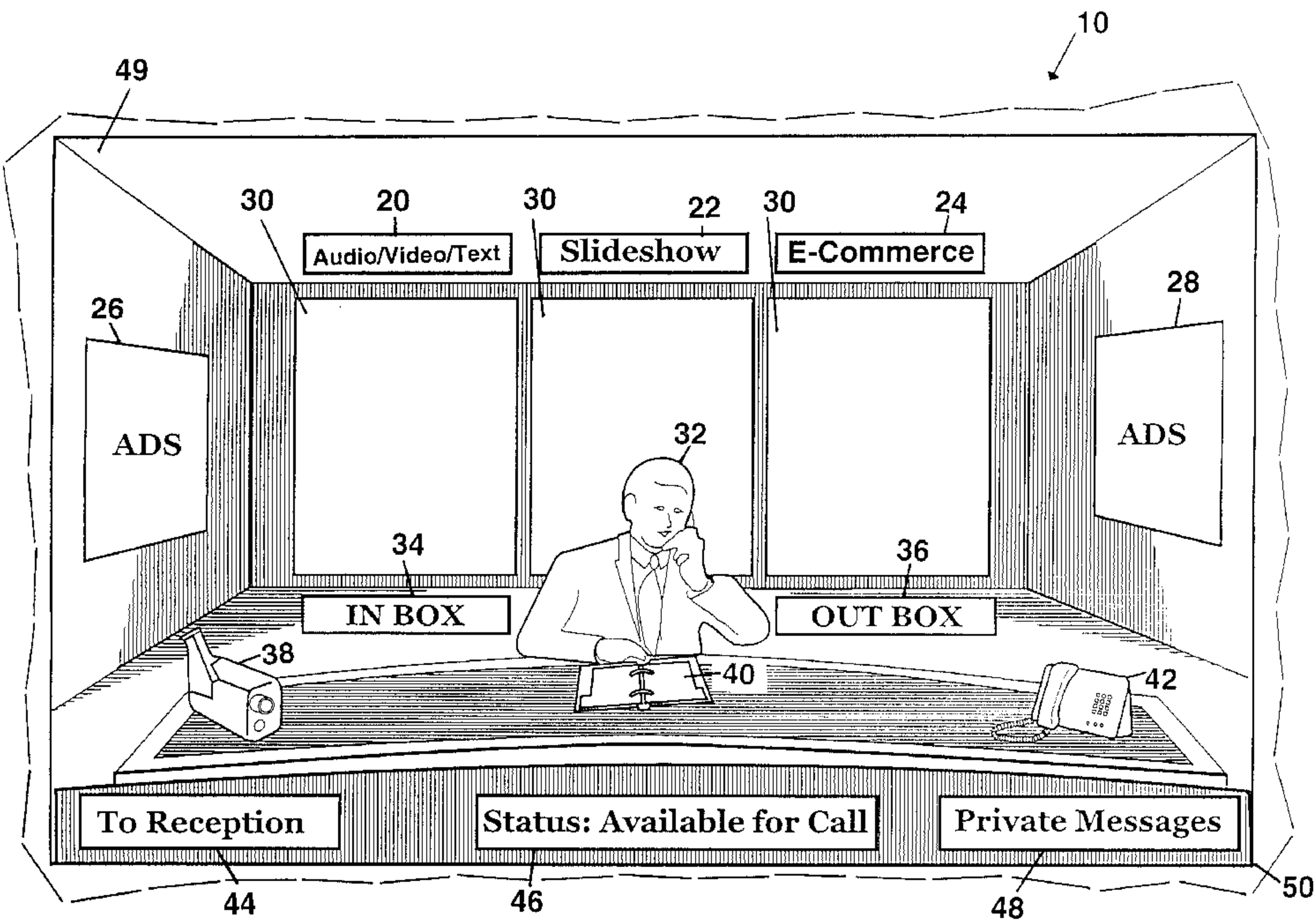

340
Start Diary
342
Is the office owner available?
344
Display message to visitor
346
Start chat software
348
Office owner accept chat?
350
Initiate chat with office owner
352
End chat with office owner
354
Close chat software
356
Continued on Fig. 8 Step 250

Fig. 12


10
49
30
20
Audio/Video/Text
30
22
Slideshow
30
24
E-Commerce
26
28
ADS
ADS
32
34
36
IN BOX
OUT BOX
38
40
42
To Reception
Status: Available for Call
Private Messages
44
46
48
50