Innovation, Sciences et Développement économique Canada
Office de la Propriété Intellectuelle du Canada

Innovation, Science and Economic Development Canada
Canadian Intellectual Property Office

CA 2507310 C 2022/02/22

(11)(21) 2 507 310

(12) BREVET CANADIEN
CANADIAN PATENT

(13) C

(86) Date de dépôt PCT/PCT Filing Date: 2003/11/26
(87) Date publication PCT/PCT Publication Date: 2004/06/17
(45) Date de délivrance/Issue Date: 2022/02/22
(85) Entrée phase nationale/National Entry: 2005/05/26
(86) N° demande PCT/PCT Application No.: US 2003/037779
(87) N° publication PCT/PCT Publication No.: 2004/051411
(30) Priorité/Priority: 2002/11/27 (US10/305,858)

(51) Cl.Int./Int.Cl. *G06Q 10/06* (2012.01)

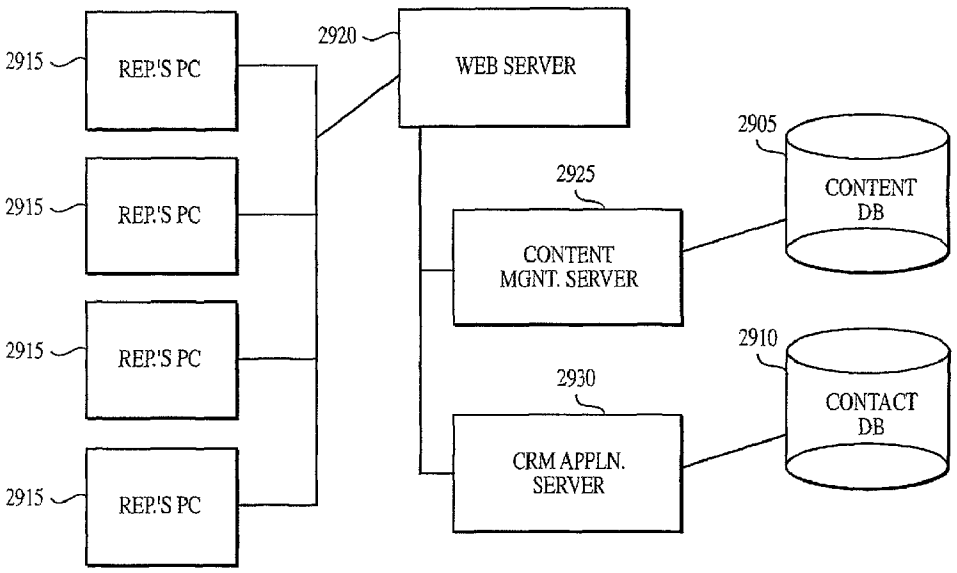
(72) Inventeurs/Inventors:
REID, GREGORY S., US;
RINGO, TIMOTHY, GB;
LANE, DAVID P., GB;
LIAN, ELIZABETH H., US;
FARRELL, DANIEL, C., GB;
FENTON, CRAIG, GB;
...

(73) Propriétaires/Owners:
ACCENTURE GLOBAL SERVICES LIMITED, IE;
BRITISH TELECOMMUNICATIONS PLC, GB

(74) Agent: SMART & BIGGAR LLP

(54) Titre : POUR UNE MEILLEURE CONNAISSANCE DES UTILISATEURS SUPERIEURS D'UN CENTRE DE CONTACT

(54) Title: CAPTURING INSIGHT OF SUPERIOR USERS OF A CONTACT CENTER



(57) Abrégé/Abstract:
New functions for a contact center system include: testing user's comprehension of informational messages with a quiz; capturing insight of superior users having a KPI score above a threshold by having those users submit information on why they perform so

(11)(21) 2 507 310

(13) C

(72) Inventeurs(suite)/Inventors(continued): SHEARING, ELISE, GB; BELL, RANDY, US; WONG, SEVASTI, GB; LINGHAM, ANTHONY, GB; FORRESTER, AUDREY, GB; STAUBITZ, CLAUDIA, GB; ADAMS, KEVIN, GB; PICKERING, LESLEY, GB; RITCHIE, PAUL, GB

(57) Abrégé(suite)/Abstract(continued):
well; dynamically ordering solutions to issues by re-ranking the solutions periodically based on recency and frequency; integrating information for use by a contact center representative while online with a customer and information for use when not online; storing content items in a telecommunications industry taxonomy; directing user feedback on a content item to the proper owner/manager of that content; communicating solution information using a solutions taxonomy; displaying a dual information system having a CRM application as well as reference material that is context-appropriate; enforcing completion of a group of templates when creating a content item to be published; ensuring a group of templates for a content item are complete before publishing them; and searching within a contact center system portal using a continuum of search functions.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/051411 A2

(51) International Patent Classification[7]: G06F

(21) International Application Number:
PCT/US2003/037779

(22) International Filing Date:
26 November 2003 (26.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/305,858 27 November 2002 (27.11.2002) US

(71) Applicants: **ACCENTURE GLOBAL SERVICES GMBH** [CH/CH]; Geschäftshaus Herrenacker 15, CH-8200 Schaffhausen (CH). **BT GROUP PLC** [GB/GB]; 81 Newgate Street, London, EC1A 7AJ (GB).

(72) Inventors: **REID, Gregory, S.**; 157 Spofford Road, Boxford, MA 01921 (US). **RINGO, Timothy**; 4 Gilkes Crescent, London, SE21 7BS (GB). **LANE, David, P.**; 22 Hendon Grove, Epsom, London KT19 7LH (GB). **LIAN, Elizabeth, H.**; 14 Still Street, Brookline, MA 02446 (US). **FARRELL, Daniel, C.**; 9B Atherton Street, London SW11 2JE (GB). **FENTON, Craig**; 58 Niton Street, London SW6 6NJ (GB). **SHEARING, Elise**; Flat 2, 96 Clapham Common Southside, London, SW4 9DN (GB). **BELL, Randy**; 535 East Main Street, Ottawa, IL 61350 (US). **WONG, Sevasti**; 32 John Archer Way, London SW18 2TT (GB). **LINGHAM, Anthony**; PO Box 18499, London EC4N 4TN (GB). **FORRESTER, Audrey**; 3 Lockhart Court, Mearnskirk G77 5FT (GB). **STAUBITZ, Claudia**; Jontiara, 43 The Street, Woodbrige, IP12 3BL (GB). **ADAMS, Kevin**; 1 Mossfield Drive, Stoke-On-Trent, ST8 6UL (GB). **PICKERING, Lesley**; 35 Oriel Drive, Liverpool, L10 3JL (GB). **RITCHIE, Paul**; 7 Elmcroft Close, Liverpool, L9 7LZ (GB).

(74) Agent: **LIESKE, Steven, C.**; Oppenheimer Wolff & Donnelly LLP, 45 South Seventh Street, Suite 3300, Minneapolis, MN 55402-1609 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2004/051411 A2

(54) Title: CAPTURING INSIGHT OF SUPERIOR USERS OF A CONTACT CENTER

(57) Abstract: New functions for a contact center system include: testing user's comprehension of informational messages with a quiz; capturing insight of superior users having a KPI score above a threshold by having those users submit information on why they perform so well; dynamically ordering solutions to issues by re-ranking the solutions periodically based on recency and frequency; integrating information for use by a contact center representative while online with a customer and information for use when not online; storing content items in a telecommunications industry taxonomy; directing user feedback on a content item to the proper owner/manager of that content; communicating solution information using a solutions taxonomy; displaying a dual information system having a CRM application as well as reference material that is context-appropriate; enforcing completion of a group of templates when creating a content item to be published; ensuring a group of templates for a content item are complete before publishing them; and searching within a contact center system portal using a continuum of search functions.

CAPTURING INSIGHT OF SUPERIOR USERS OF A CONTACT CENTER

BACKGROUND OF THE INVENTION

Rapid advances in technology have created computerized tools that enable companies to better interact with their customers. Such tools are one component of Customer Relationship Management ("CRM"), a management philosophy in which a primary theme is the value of building equity in the relationships with customers. As this relationship equity builds, the customer's attachment and loyalty to the company increases, the likelihood that the customer will switch to a competitor decreases, and the company's sales to that customer inevitably increase.

The Internet Age has increased customers' expectations about the ease and speed with which activities should be handled. While the average United States company loses 15% - 20% of its customer base each year, high churn sectors - such as telecommunications and airlines - can have up to a 40% annual customer attrition rate. Keeping customers relies, in part, on maintaining their loyalty and building relationship equity. To improve customer satisfaction, and therefore customer loyalty, call center computer systems may seek to maximize the representative's ability to serve customers. Historically, traditional call centers only handled telephone calls from customers. To offer better service, newer contact centers may allow representatives to perform sales, service, and support functions with customers via many communication channels, including telephone, fax, e-mail, web, and IVR ("interactive voice response").

The enhanced functionality of such contact center computer systems may assist representatives in being more efficient in dealing with customers. This may be economically important since labor costs make up more than 60% of a contact center's operating budget. For a typical company spending $500 million annually on customer interaction, shaving just one second off the average length of a customer contact can save $1 million each year.

The present inventors have perceived the desirability of a contact center that includes enhanced processes and computerized systems that work to enhance the service to customers and the efficiency in doing so. The solution may integrate with existing contact center tools to leverage software that is either available from third party vendors or that has already been developed in-house. In addition to improving the computer systems of contact centers, the present inventors have also perceived the desirability of improving the human performance

aspect of the centers.

SUMMARY OF THE INVENTION

An illustrative embodiment of the invention involves capturing insight of a user (for example, a user for a contact center) performing at a superior level, which may include taking a key performance indicator ("KPI") for a user and comparing it against a reference KPI. If the user's KPI exceeds the reference KPI, then the user is queried for an insight on why he or she is performing exceptionally well. In one embodiment, the insight is forwarded to a facilitator for process improvement. Or it may be sent to a reviewer so it may be published in a user environment. In one embodiment, the reference KPI, the user KPI, or both are graphically displayed. In one embodiment, the reference KPI is the average of KPIs for a group of users of the system. In other embodiments, it may be set at a predetermined level. In one embodiment, corrective material is provided to the user if the user's KPI is worse than the reference KPI.

Another illustrative embodiment of the invention relates to a method for capturing insight of a user of a contact center portal displayed on a user computer, the user computer being in communication with a web server in a computer network. The method includes reading a user key performance indicator (KPI) associated with the user, reading a reference KPI, and determining whether the user KPI meets or exceeds the reference KPI. The method also includes causing a user insight input window to be displayed on the user computer when the user KPI meets or exceeds the reference KPI. The user insight input window is operable to receive input from the user of at least one reason why the user performs exceptionally well. The method also includes receiving the at least one reason at the web server and causing the at least one reason to be stored in a database in communication with the computer network.

Reading the reference KPI may involve reading an average of user KPIs associated with a plurality of users of the contact center portal.

Reading the reference KPI may involve reading a predetermined minimum KPI.

The method may involve causing a flag stored in the database to be set to indicate that the user KPI meets or exceeds the reference KPI.

Causing the user insight input window to be displayed may involve reading the flag in the database, and causing the user insight input window to be displayed on the user computer when the flag may be set.

The method may involve causing the user insight to be displayed on another user computer in response to a user of the other user computer requesting display of their user KPI.

Causing the user KPI to be displayed may involve causing at least one of a graph of the user KPI to be displayed, and a graph of the reference KPI to be displayed.

The method may involve causing the user insight to be displayed on the other user computer when the other user has a user KPI that does not meet of exceed the reference KPI.

The method may involve causing the at least one reason provided by the user to be sent to a facilitator for process improvement.

The method may involve causing the at least one reason to be sent to a reviewer, and publishing the at least on reason when the reviewer has approved the reason for publication.

The method may involve providing corrective material to the user if the user KPI may be worse than or the same as the reference KPI.

In accordance with another illustrative embodiment of the invention, a computer readable medium is encoded with codes for directing a computer processor circuit to carry out any of the methods above.

Another illustrative embodiment of the invention relates to a system for capturing insight of a user of a contact center portal displayed on a user computer, the user computer being in communication with a web server in a computer network. The system includes provisions for reading a user key performance indicator (KPI) associated with the user, provisions for reading a reference KPI, and provisions for determining whether the user KPI meets or exceeds the reference KPI. The system further includes provisions for causing a user insight input window to be displayed on the user computer when the user KPI meets or exceeds the reference KPI. The user insight input window is operable to receive input from the user of at least one reason why the user performs exceptionally well. The system also includes provisions for causing the at least one reason to be stored in a database in communication with the computer network.

The provisions for reading the reference KPI may include provisions for reading an average of user KPIs associated with a plurality of users of the contact center portal.

The provisions for reading the reference KPI may include provisions for reading a predetermined minimum KPI.

The system may include provisions for causing a flag stored in the database to be set to indicate that the user KPI meets or exceeds the reference KPI.

The provisions for causing the user insight input window to be displayed may include provisions for reading the flag in the database, and provisions for causing the user insight input window to be displayed on the user computer when the flag may be set.

The system may include provisions for causing the user insight to be displayed on another user computer in response to a user of the other user computer requesting display of their user KPI.

The provisions for causing the user KPI to be displayed may include provisions for causing at least one of a graph of the user KPI to be displayed, and a graph of the reference KPI to be displayed.

The system may include provisions for causing the user insight to be displayed on the other user computer when the other user has a user KPI that does not meet of exceed the reference KPI.

The system may include provisions for causing the at least one reason provided by the user to be sent to a facilitator for process improvement.

The system may include provisions for causing the at least one reason to be sent to a reviewer, and provisions for publishing the at least on reason when the reviewer has approved the reason for publication.

The system may include provisions for providing corrective material to the user if the user KPI may be worse than or the same as the reference KPI.

In another illustrative embodiment of the invention, a system for capturing insight of a user of a contact center portal includes a user computer operably configured to display the contact center portal, the user computer being in communication with a computer network. The system also includes a web server in communication with the computer network. The web server is operably configured to read a user key performance indicator (KPI) associated with the user, read a reference KPI, and determine whether the user KPI meets or exceeds the reference KPI. The web server is also operable to cause a user insight input window to be displayed on the user computer when the user KPI meets or exceeds the reference KPI. The user insight input window is operable to receive input from the user of at least one reason why

the user performs exceptionally well. The web server is also operably configured to cause the at least one reason to be stored in a database in communication with the computer network.

The web server may be operably configured to read the reference KPI by reading an average of user KPIs associated with a plurality of users of the contact center portal.

The web server may be operably configured to read the reference KPI by reading a predetermined minimum KPI.

The web server may be operably configured to cause a flag stored in the database to be set to indicate that the user KPI meets or exceeds the reference KPI.

The web server may be operably configured to cause the user insight input window to be displayed by reading the flag in the database, and causing the user insight input window to be displayed on the user computer when the flag may be set.

The web server may be operably configured to cause the user insight to be displayed on another user computer in response to a user of the other user computer requesting display of their user KPI.

The web server may be operably configured to display at least one of a graph of the user KPI, and a graph of the reference KPI.

The web server may be operably configured to cause the user insight to be displayed on the other user computer when the other user has a user KPI that does not meet of exceed the reference KPI.

The web server may be operably configured to cause the at least one reason provided by the user to be sent to a facilitator for process improvement.

The web server may be operably configured to cause the at least one reason to be sent to a reviewer, and publish the at least on reason when the reviewer has approved the reason for publication.

The web server may be operably configured to provide corrective material to the user if the user KPI may be worse than or the same as the reference KPI.

In another illustrative embodiment of the invention, a web-based method for capturing insight of a user performing at a superior level within a contact center may include:

recording performance data for a plurality of calls participated in by the user within the contact center using a computer;

computing a user key performance indicator (KPI) for the user, using the computer, based on the performance data recorded from the plurality of calls, the key performance indicator measuring performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user;

comparing a difference between the user KPI and a reference KPI, using the computer;

querying the user to provide insight when the user KPI exceeds the reference KPI via a first interface, including:

displaying to the user an option to provide insight when the user KPI exceeds the reference KPI;

presenting a template selected from a plurality of templates to the user responsive to the user selecting the option to provide insight, the plurality of templates relating to at least one reason that the user KPI exceeds the reference KPI;

assigning each of the plurality of templates to different users selecting the option to provide insight;

storing each template completed by each user providing insight; and

determining when the plurality of templates are completed by the users providing insight; and

providing corrective material to the user, via a second interface, when the user KPI does not exceed the reference KPI, wherein the corrective material is derived from insight provided by users whose user KPI exceeds the reference KPI.

The method may include sending the insight to a facilitator for process improvement.

The method may further include routing the insight to a reviewer, wherein the reviewer reviews and publishes the insight to a user environment.

The method may further include graphing the reference KPI.

The method may further include graphing the user KPI.

The method may further include the reference KPI being an average of KPIs for a plurality of users.

The method may further include the reference KPI being a predetermined minimum.

The method may further include graphing the user KPI and the reference KPI.

In accordance with another illustrative embodiment of the invention, a system for capturing insight of a user performing at a superior level within a contact center may include:

a recording unit for recording performance data for a plurality of calls participated in by the user within the contact center;

a computer for computing a user key performance indicator (KPI) for the user based on the performance data recorded from the plurality of calls, the key performance indicator measuring performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user;

a comparator for comparing a difference between the user KPI and a reference KPI;

a query unit for querying the user to provide insight when the user KPI exceeds the reference KPI, including:

displaying to the user an option to provide insight when the user KPI exceeds the reference KPI;

presenting a template selected from a plurality of templates to the user responsive to the user selecting the option to provide insight, the plurality of templates relating to at least one reason that the user KPI exceeds the reference KPI;

assigning each of the plurality of templates to different users selecting the option to provide insight;

storing each template completed by each user providing insight; and

determining when the plurality of templates are completed by the users providing insight; and

a correction unit for providing corrective material to the user when the user KPI does not exceed the reference KPI, wherein the corrective material is derived from insight provided by users whose user KPI exceeds the reference KPI.

The system may include a sending unit for sending the insight to a facilitator for process improvement.

The system may further include a router for routing the insight to a reviewer, wherein the reviewer reviews and publishes the insight to a user environment.

The system may further include a first graphing unit for graphing the reference KPI.

The system may further include a second graphing unit for graphing the user KPI.

The system may further include the reference KPI being an average of KPIs for a plurality of users.

The system may further include the reference KPI being a predetermined minimum.

The system may further include a third graphing unit for graphing the user KPI and the reference KPI.

In another illustrative embodiment of the invention, a computer readable medium has code stored thereon for execution by a computer to capture insight of a user performing at a superior level within a contact center. The code may include:

a code segment for recording performance data for a plurality of calls participated in by the user within the contact center;

a code segment for computing a user key performance indicator (KPI) for the user based on the performance data recorded from the plurality of calls, the key performance indicator measuring performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user;

a code segment for comparing a difference between the user KPI and a reference KPI;

a code segment for querying the user to provide insight when the user KPI exceeds the reference KPI, said querying including the steps of:

displaying to the user an option to provide insight when the user KPI exceeds the reference KPI;

presenting a template selected from a plurality of templates to the user responsive to the user selecting the option to provide insight, the plurality of templates relating to at least one reason that the user KPI exceeds the reference KPI;

assigning each of the plurality of templates to different users selecting the option to provide insight;

storing each template completed by each user providing insight; and

determining when the plurality of templates are completed by the users providing insight; and

a code segment for providing corrective material to the user when the user KPI does not exceed the reference KPI, wherein the corrective material is derived from insight provided by users whose user KPI exceeds the reference KPI.

The code may include a code segment for sending the insight to a facilitator for process improvement.

The code may further include a code segment for routing the insight to a reviewer, wherein the reviewer reviews and publishes the insight to a user environment.

The code may further include a code segment for graphing the reference KPI.

The code may further include a code segment for graphing the user KPI.

The reference KPI may be an average of KPIs for a plurality of users.

The reference KPI may be a predetermined minimum.

The code may further include a code segment for graphing the user KPI and the reference KPI.

In a further embodiment of the invention, the method for capturing insight of a user performing at a superior level within a contact center referred to above may further include querying the user to provide insight which may further include generating a task for completion of the template assigned to the user.

The method may further include tracking a progress of completion of each of the plurality of templates.

In a further embodiment of the invention, the system for capturing insight of a user performing at a superior level within a contact center referred to above may further include the query unit for querying the user to provide insight which may further include generating a task for completion of the template assigned to the user.

The system may further include a tracking unit for tracking a progress of completion of each of the plurality of templates.

In a further embodiment of the invention, the code segment for querying the user to provide insight may further include generating a task for completion of the template assigned to the user.

The code may further include a code segment for tracking a progress of completion of each of the plurality of templates.

2H

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a screen shot of the login screen of the web-based Contact Center System.

Figures 2A-2D are screen shots of the homepage for the Contact Center System.

Figures 3A-3B are screen shots of the KPI details page for the Contact Center System.

Figure 4 is a screen shot of the knowledge sharing utility of the Contact Center System.

Figures 5A-5B are screen shots of the Expert Solutions area of the Contact Center System.

Figure 6 is a hierarchical representation of how solution content is categorized.

Figures 7A-7D are screen shots of the Urgent Notices section of the Contact Center System.

Figure 8 is a screen shot of the Contact Center System quiz function.

Figure 9 is a screen shot illustrating the continuum of search functions offered.

Figure 10 is a screen shot showing the details of an alphabetic search.

Figures 11 through 18 are block diagrams showing one hierarchical content taxonomy for the telecommunications industry.

Figures 19 and 20 are screen shots showing the Search by Feature function.

Figure 21 is a screen shot showing the Product Comparison feature.

Figure 22 is a screen shot showing the content displayed from a category search for a service.

Figure 23 is a screen shot showing the process of the Search by Category function.

Figure 24 is a screen shot showing the results of the Search by Keyword function.

Figure 25 is a screen shot showing the results of a Customer Needs search.

Figure 26A-26D are screen shots showing the dual display of a CRM product next to various search functions.

Figure 27 is a screen shot of the Content Management System, where a new content item is being set up.

Figure 28 is a screen shot of the Content Management System where a task list has five assigned tasks.

Figure 29 is a block diagram of the technical components of one embodiment of the Contact Center System.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Figures 1 through 10 show the web pages for a web-based contact center system ("CCS") that demonstrates one example of numerous implementations of the present invention. Figure 1 is the web page by which the CCS users can enter the contact center system portal. To keep the CCS secure and consolidate multiple login processes to all systems necessary to support the Customer Contact Center support role, a user is prompted once for his or her username 105 and password 110. Throughout this description, since the CCS is directed primarily to representatives in a contact center, the terms representative and user are used synonymously. However, because certain aspects of the system include authoring, reviewing, and publishing content for use in the contact center, the term user is also used to refer to people performing those tasks as well.

The Home Page and an Overview of the System's Features

Figures 2A-2D show the contact center home page, which consists of several organized regions. It is from this home page that the contact center representative accesses the system's various functions. While several functions will be highlighted in the discussion of figures 2A-2D, further details for these functions will be described in view of the subsequent figures.

In one embodiment of the home page, the page is presented as a set of tabbed pages, labeled as Home 285, Online 290 and Search 295. This arrangement of tabs allows a user to navigate between online and offline information, depending on whether or not the user is working with a customer or contact . When online, the "online" tab is clicked by the user and he or she has access to the contact center screens as well as supporting reference material. When using the offline feature, the user clicks the "home" or "search" tab for additional reference materials or for role-based capability enhancement (such as training, reading notices, checking KPI statistics, etc.) In some prior systems, multiple applications were installed on the user's PC. Some applications were directed to online activities while others were directed to offline activities. In contrast, in the present embodiment, the dual information capability enabled by the CCS's tabs allows a user to run only one application window of the browser program instead of multiple windows, thus increasing system performance. Since the offline and online functionality is highly integrated, certain embodiments of the present invention can leverage the integration by customizing the offline content based on what the user has recently done online. For example, in one embodiment, when a representative user works with a customer online, but neglects to attempt to up-sell new services to the customer, when the user then goes offline, the system can automatically offer training to the user about how to properly up-sell services. The system may also proactively offer content to the user regarding upselling and customer services potential for the specific client.

At the top center of the page urgent notices 205 can be displayed, which detail important new information of which a user should be aware in performing his or her job. For example, in the sample page shown in figures 2A-2D, there are three notices: one about updated pricing, one about the Accent Works sales campaign, and one about a learning module. As is often the case in web pages, the representative clicks on the title of the notice or the "More..." link 280 to receive full information about the notice. These notices are dynamic and may change regularly.

Along the left side of the web page, there are five boxes containing links to other some of the system's features or to informational webpages (either within a corporate intranet, or to external websites). These links include those to improve a user's performance via eLearning or micro-learning techniques 210, to contribute an idea to improve products, services or to solutions of a problem 215, to review information about the user 220, to perform a search of the CCS 225, or to connect to other helpful informational links 230.

Along the right side of the web page shown in figures 2A-2D are four regions. The first two summarize information that reflects key performance indicators (KPIs) for both the user individually 240 and the user's team or other parts of the user's organization 250. The "Details..." links 245 & 255 access pages that provide further information about these KPI statistics. Below the KPI information regions, there is a region listing unread information pertinent to the user 260 (which may outline the content that the user has yet to read or review and will reduce the need to search for new content regularly) followed by a region that lists the most common solutions to questions faced by customers or contacts 270.

The web pages of figures 2A-2D also show regions for call time, target time, news items, recognition information, team messages, and a survey. It also includes links to tools, such as a jargon dictionary, a directory, ZIP code and area code utilities, and useful phone numbers. It may also be personalized for the user as evidenced by the message in the top left corner greeting the user on the home page, as well as targeted content in the message areas.

Key Performance Indicators and Capturing Insight

Figures 3A-3B is the detailed page displayed to the user after he or she clicks on the "Details..." link from the home page 245. While the key performance indicators vary depending on the implementation and use of the contact center, figures 3A-3B show four common KPI's: the average talk time in seconds, the average wrap time in seconds, the number of calls resolved and the number of calls requiring a transfer. For comparison purposes, the user's individual KPI statistics are charted against a reference number. In figures 3A-3B, that reference is the team average. In other embodiments, the base reference could be the user's rating from a previous period, or a pre-determined objective, for example. A textual explanation of each chart is provided to the right of the chart.

In this embodiment, for every call attended to by a user, the system records data about that call, which is used to calculate the statistics shown in figures 3A-3B. (One skilled in the art will understand that such data capture and statistical calculations can be done programmatically in a number of ways.) The CCS compares the user's KPIs to the team's performance averages (or other base figure). If the user is performing at some pre-established level - such as above the team average, a certain percentage above the median or mean, a standard deviation above the median or mean , etc. - then the system automatically provides a link 330 asking the user to share his or her insight on what causes such good performance. Clicking on that link 330 or 340 opens a window (figure 4), into which the user enters information regarding how he achieves such superior performance levels. Upon clicking the submit button 410, the system stores this information. The insight gained from the high performing users can be used in many ways. In one example, information gleaned from these submissions is used to create an informational message that is presented to users that are not performing in such a superior fashion. This type of message is displayed when a user clicks on links such as 320 and 325 from figures 3A-3B. The KPI comparisons are used to motivate users to perform better. They are also used to gather insight from good users and to offer training moments to underachievers.

Finding Solutions to Common Issues

Returning to figures 2A-2D, in this embodiment, the CCS provides a Top Ten Solutions box 270. This solutions box provides the CCS user with instant access to the solutions that have been most often accessed by all CCS users or solutions that are considered critical by Contact Center management. Thus, it presents a quick way to use the home page to present the most used information without cluttering it with solutions that are rarely accessed. Of course, while figures 2A-2D show 10 solutions, the number can be changed to another number in other embodiments. While the solutions shown in this region 270 can be manually chosen by administrators, in one embodiment of the CCS, the solutions are dynamically arranged. That is to say, a solution's rank is a function of the frequency and/or recency by which that solution has been accessed within some defined period of time. To maintain this dynamically changing list of solutions, the system stores data about each solution, including for example the last date on which the solution was accessed, the number of times each particular solution was accessed on each particular date, etc. This data is then evaluated by the system to rank all solutions,

displaying the top ten solutions in the top solutions box 270 shown in figures 2A-2D. Therefore, the listing reflects those solutions of most recent interest to the users and/or of most frequent interest to the users.

There are numerous ways to implement this dynamic list. In one embodiment, the ranking of the solutions is calculated each night. In another embodiment, the list is refreshed every hour. The list can even be re-ranked each time a solution is accessed. Such embodiments have the advantage that the list closely mirrors the problems currently being researched by the representatives. If an unexpected emergency occurs, while the system administrator can post an urgent notice 205 to the home page, the solution to the problem will quickly bubble up the rankings as more and more CCS representatives search for the solution.

In the embodiment of the solutions list shown in figures 2A-2D, the title of each solution displayed in the top solutions box 270 is itself a link 275 to more information on that solution. A user clicks on that solution title, and is taken to a separate web page, of which one embodiment is displayed in figures 5A-5B. The information presented in figures 5A-5B is arranged in at least one embodiment through an Expert Solutions taxonomy. For each industry supported by a CCS, the goods or services serviced have a unique arrangement of dependencies, relatedness, and issues. The Expert Solutions taxonomy provides a structured presentation to the CCS user of information to solve the problems presented by customers. The taxonomy (a.k.a. content architecture) is based on the patterns of the types of data and may be intuitive to the CCS representatives.

In this embodiment, Figures 5A-5B show a link at the bottom of the web page 550 that encourages the user to contribute feedback. By clicking the link, the user can then type a comment explaining any errors in the content, rating the usefulness of the content, adding comments for content improvement, etc. The CCS routes this feedback to the content-owner or an advocate for the content owner. Such embodiments are advantageous over the prior art. In some traditional systems, the end users of a CCS may get frustrated when they are faced with inaccurate information in the system. If the user is not empowered to correct these mistakes, the user's confidence in the system may wane and other users may continue to be presented with the inaccurate information. Some systems list a central contact for all users to call or e-mail regarding problems with the system. The contact person may receive dozens of comments or

questions daily and thus may be unable to keep up with the requests. When the contact person works to correct a mistake in the content, that person may be required to determine which author, reviewer, manager, or team is responsible for that particular element of content. This task may be a burdensome task and is addressed with embodiments of this invention.

More particularly, in illustrative embodiments, content items in the CCS are associated to the various content owners. The owners may be the original authors, a team, a manager, a copy editor, etc. The system does not require the end user to find out who the proper content owner is. Rather, when the user submits feedback, the system automatically sends the information to the proper party.

In this embodiment, the taxonomy used in the CCS shown in the figures groups information for a solution into several headings, including one section detailing the general solution (510) and further questions to ask the caller (520), a second section detailing exceptions to the solution (530), and a third section detailing contact numbers for further information (540). Solution information is stored by the system in a taxonomic tree or hierarchy, one embodiment of which is shown in figure 6, using the solution titles as general reference points (the trunk) around which more specific information is grouped (branches). In such embodiments, this method of arrangement simplifies access by users, allowing them to locate more efficiently the information that they need.

Urgent Notices and Ensuring Information is Read and Understood

In this embodiment, the urgent notices information box 205 provides links to web pages regarding the listed urgent notices (e.g. details 280) as determined by the user's role. Clicking on the link takes a user to the update notice, which provides information to multiple users regarding new information, updated information, or alerts (figures 7A-7D). Once the user has read and understood the material presented in the notice, he or she may be required to take a quiz on the subject. Quizzes may be conducted based on a random generator, based on the user themselves, based on the content provided, based on the time or date, or based on any group or groups to which the user belongs. In the webpage of figures 7A-7D, there is a link 710 that is clicked to go to the quiz. The link brings up another window, an embodiment of which is shown in figure 8, which presents a short quiz to the user. Once the user takes the quiz and clicks the submit button 805, the system will store that information. The quiz may allow the

system to capture the user's understanding of the information presented (such as new information, an alert, or an update to pre-existing information). The quiz results may be used by supervisors and others to improve a user's understanding of new information, to modify the method by which the information is disseminated, or to track what new knowledge users have acquired. Without the quiz function a manager or administrator may not be able to verify whether the material was read or understood. In various embodiments, depending on the user's quiz results, corrective information can be sent to the user to improve the user's understanding of the information.

More Industry Taxonomy

As discussed above, in illustrative embodiments, an intuitive taxonomy (or categorization) of reference material assists in easy retrieval of the desired information. Figures 11 through 19 illustrate one innovative arrangement of data for a CCS directed to a company in the telecommunications industry. As shown in figure 11, four primary categories into which all reference information is sorted can be: products, services, campaigns and procedures. Figures 12 and 13 show an example of hierarchical subcategories for a product. Figures 14 through 19 show examples of the subcategories for services. To use such a taxonomy in the CCS, a content management database is created having the hierarchical categories and subcategories related through the use of database tables, record fields and keys. For example, content about the features of the key selling points of the BT Mini-Dect 1000 digital cordless phone (see figure 13) can be stored in the database in the following fashion:

In addition to the primary categories shown in figure 11, user intentions (a.k.a. customer needs) can be another category implemented. This mechanism aggregates content associated with a specific customer or contact process. For example, "Moving Home" will require the disconnection of a service, cancellation of the bill, reconnection of the service, reestablishment of the bill to the new address. A 'One Click' solution to common and uncommon customer or contact processes has been developed to provide access to all content associated with a given processes.

A Continuum of Search Capabilities

As websites have become an everyday source of information, users may have become frustrated with not being able to find the information quickly and easily. Search engines usually

require a user to type in a phrase or key words. There are directories (such as the one provided by www.google.com) that attempt to place all of the information from the web into a neat set of categories. However, even these directories are not always useful. One problem is that each person may use a different approach to look up information. What is an obvious keyword to one person may be confusing to the next person. Also, some items that a user needs to look up information for may have clear terminology while others are less definite. To handle the problem of how to assist the user in searching for content, the illustrative embodiment of the CCS shown in the drawings offers not just a single search utility, but rather provides a continuum of search utilities. Such embodiments allow the user to use the type of searching best suited to him or her, or to the type of information being sought. In addition, they allow the user to quickly move to another type of searching technique if one technique does not retrieve the desired results.

Figure 9 shows one search screen for a CCS. Note that the continuum of search facilities are provided on the left side of the display. In the example of figure 9, a representative can search by a keyword 905, via a hierarchical categorization 910, by an alphabetic index 915, by customer needs (a.k.a. customer intentions) 920, or by a drop down list of keywords 925.

Figure 10 shows the result of a representative using the alphabetic index search 915 by clicking on the letter "B" 1005. The right side of the display shows the results from the search. Notice that all of the results are products that all begin with "BT." In this example, the alphabetic search may not be the easiest method to use. In the embodiment shown in Figure 10, since the results appear in the right side of the display, all of the continuum of search functions remain available on the left side of the screen so the user can easily move on to another type of search.

Figure 19 shows a service representative in the middle of a categorization search 1910. By pausing the selection pointer over the "Products" label (or by clicking on it), the next level of hierarchy is presented 1905, which includes the categories of "search by feature," "analogue cordless phones, " "corded phones," and "digital cordless phones." By then selecting "search by feature" further subcategories are presented 1910.

Figure 20 shows the resulting webpage when the user continues the search by choosing the "search by feature" category. The user is prompted for the type of product 2005 and key

features 2010. Based on these parameters, the search results are displayed to the user 2015. The user can choose to continue his or her research by comparing the chosen product against a second product 2020. Figure 21 shows the results of such a comparison search.

The categorization search 1910 just demonstrated for products offers different result formats depending on the category. For example, figure 22 shows the results returned when the "services" category is chosen followed by the "select services" subcategory and then the "BT Answer 1571" subcategory. Here, the results are shown with a summary section, a section describing key selling points, and a third section with recommendations for ideal uses. Additional links for this service can be accessed in the second column of the screen (such as "pricing," "highlights/overview," etc.) Figure 23 shows some of the categories available under the "procedures" division.

Figure 24 demonstrates the keyword searching utility 925. In that figure, the keyword "budget" has been chosen and the results 2405 are displayed on the right side of the screen.

Figure 25 demonstrates a powerful search utility - the "Search by Customer Needs" 920. There are some circumstances that a customer will present an issue that is not readily defined by a single keyword or category. Or, that issue might be associated with numerous other categories which would not normally be associated. For example, in the telecommunications industry, when a customer dies, a landlord may call the contact center to have the service disconnected. Or, the customer may have many questions about the concept of being billed for an ancillary phone service by a third party, such as Internet access by an ISP. While various representatives would look under different keywords or categories, these situations can be grouped by describing what the customer's current needs are or what the customer's intentions are. A single click on the proper customer need 920 displays a mind map of the relevant concepts, along with frequently asked questions 2510 and related links 2515. The user can then easily choose which concept best fits the situation, such as how the act of the customer moving home may result in a charging dispute 2520.

CRM Integration

Of course, in various embodiments one of the primary purposes for a CCS is to assist with the representative's interaction with customers. A CRM product is used to capture, store, and retrieve customer information during the interaction. Various embodiments of the invention

provide integration between the various functions and a CRM product. Figures 26A- 26D shows one embodiment of the information displayed when the user clicks on the "online" tab. The screen is divided into various regions. In the figures 26A-26D example, the two primary regions are the CRM contact center application on the right side 2605 and a reference utility on the left side 2610. While various embodiments of the invention may integrate with any of a number of CRM contact center applications, for the example shown in figures 26A-26D, the CRM contact center application provides customer name, address, and similar information. It also informs the representative the products and services currently owned by the customer 2615. A call log 2620 allows the user to input details about the interaction for future reference. The history of calls are available for retrieval in the Past Activity region 2625.

In this embodiment, the reference utility area 2610 can display one or more types of reference material. The example of figures 26A-26D give the user the ability to search for products/services 2630, lookup solutions to problems 2635 or find out about procedures 2640. The searches can be accomplished through a continuum of search utilities (as discussed above). For example, an alphabetic search, a keyword search, a natural language search and a category search are shown as examples of such a continuum.

In this embodiment, this online display simultaneously provides the user with both the CRM access as well as the reference access. These two regions are dynamic and integrated, such that they are context appropriate to one another. For example, when the user is in the Products field 2615 of the CRM application, the Products/Services search can be automatically displayed in the reference region 2610. Later, when the user is in the call log region of the CRM application 2620 and is typing in the user's question or problem, the reference region 2610 can automatically search on the call log's description and display the most relevant expert solutions. This integration of the two areas of the CCS helps the user to respond to the customer more easily and more quickly. In various embodiments, by prompting the user with context-appropriate data, a newer user can appear to the customer as a seasoned expert.

Content Management: Authoring and Publishing

In various embodiments, while the contact representatives are the users of the system as they interact with clients, another group of users help to manage the content itself. The software used for publishing the content can be integrated within the CCS itself, or can be a stand alone

application. Here, it will be referred to as the Content Management System ("CMS"). The CMS publishes (or loads) approved content to the CCS for viewing by the contact center representatives.

Content publishing and management is well known in the art. However, it is not without problems. Various embodiments of the CMS automate many of the problems in current content management systems. Figure 27 shows one example of a software interface which is one of the first used in adding new content. Here, the user assigns the new content to a primary category within the previously described taxonomy (by choosing one of Product, Service, Procedure, or Jargon Buster Item) 2705. A title associated with the content item is entered 2710 and the author identified 2715. To enable the content item to be correctly retrieved by the continuum of search utilities, keywords, user intentions and the correct category are all entered (2720, 2725 and 2730).

Finally, the person who is charged with reviewing and approving the item is selected as well as the milestone dates - such as the commission date, write by date, publish by date, and expiry date (2735 through 2755). These dates are used as due dates for the various steps towards publishing the content item.

In prior systems, the author, manager or publisher may have been required to manually choose the proper set of templates to be used in building a new content item. For example, if the user wished to generate content for a new product, a characteristics template, a selling points template, a key features templates, and a photo template may have all needed to be completed. If one or more of these templates were not generated, then either the item could be successfully published to the CCS, or the CCS user would be faced with missing data when the content item was retrieved. For example, the CCS user may be accustomed to seeing the key selling points whenever a product or service is searched. Unless that template was included in the creation of content for each new product, it may not always be displayed. This may create confusion and missing information.

Various embodiments of the invention use a data structure that determines the proper set of templates that are required based on the type of content to be added. For example, in figure 27, a product has been selected in the family field 2705 and more specifically, that product has been declared to be a cordless analogue phone in the category field 2730. Based on

this information, the CMS can choose the proper set of templates and present them to the appropriate users. In the example of figure 28, each template is presented via a generated task. Thus, when a user set up the system for a new service known as the "Home Highway" service, the following five templates were determined to be required: Overview/Highlights, Ideal for, Full description, Benefits and Recap. The author's task list has five tasks added (2805 through 2825), one for each template. The due dates 2830 are based on the milestones previously entered (2740 through 2755). The task lists (also known as a person's personal work stack) supplies the user with his or her tasks by deadline. By tracking the work accomplished on the assigned templates, in various embodiments the system can display a progress report, showing whether the content item is on track or is behind schedule.

While there is a defined set of templates to chose from, each type of content results in its own combination of required but independent templates. The system can be easily improved. For example, by upgrading any one template - such as the Benefits template - subsequent usage of that template by any of the template groupings that include the template, will use the updated version. Basing all content items on groupings of common templates has the further advantage that when a new type of content item is added, its template grouping can be based, in whole or in part, on the already existing common templates. This means that enhancing the CCS to include new content types can be an easier task.

Since the job of completing each template is based on a task generated for a user, in various embodiments multiple users can readily work as a team for each content item. For example, a specialist in marketing may be charged with completing the "Ideal for..." templates while a graphic artist may always work on the photo template. The defined workflow that determines how the templates are assigned can be changed by an administrator and then the subsequent content tasks are assigned appropriately.

In past systems, the original user may have been required to determine which templates were required and then would have to contact each of the team members and give them the various assignments. In contrast, illustrative embodiments of the invention automate these tasks and thereby ensure that content items are properly generated, leveraging the previously described taxonomy of the content items to determine the proper list of required templates.

Past systems may also have been problematic at the point of publication. Once the

templates had been commissioned and reviewed, the publisher may have had to ensure all pieces of the content from the various templates were completed, had been reviewed, and were approved. Manually, the publisher would check each content element before publishing the group to the CCS. In contrast, illustrative embodiments of the invention automate this procedure and thereby ensure the completeness of every content item that is published. To do this, in such embodiments the system tracks each of the required templates for a content item. Each item can move from being commissioned, to being written, to being reviewed and then approved. Once the reviewer approves the format for a given template, it is flagged for publication. Once each component of the content item is reviewed and approved, the entire group can be automatically forwarded to the publisher for publication. As long as any one of the required elements remains unapproved, the publisher cannot publish the content item. Of course, there are numerous variations that can be made for this automation. Some templates may be suggested but not required. In various embodiments the system can be enhanced to support such optional components for a content item. In such an enhanced embodiment, as soon as all required components (but not optional components) have been approved, then the publisher is informed that the elements can be published.

To further ensure that all of the content components are published at the same time, in various embodiments the system assists the publisher with the act of publishing. Rather than requiring the publisher to select and instruct each individual component publication, in various embodiments a "one click" process allows the publisher to publish the entire group of elements using just a single command. In such embodiments, a great benefit offered by this publication automation is that when new content types are added to the system, or when present content types have their groupings of templates changed, the publisher does not need to be retrained to understand and to remember the changes. Rather, in such embodiments the system automatically tracks which templates are required for a content item, assigns tasks to commission each element, tracks the progress of each element, and then signals the publisher when all required elements have been approved.

Technical Architecture for the CCS

As one skilled in the art recognizes, there are many ways to install and operate a CCS/CMS. However, one embodiment is illustrated in Figure 29. In figure 29, the system

consists of a series of PC's 2915 used by the representatives in the contact center. These are connected via a network (such as the Internet or an intranet) to a web server 2920. The web server 2920 receives requests from the PC's 2915, and serves the web pages to them. To support the integrated view through the CCS/CMS, the web server is integrated to various other servers, including a CRM application server 2930 (running a CRM application, such as SIEBEL CALL CENTER™ developed by Siebel Systems, PEOPLESOFT CRM™ offered by PeopleSoft Inc., or SAP CRM™ by SAP AG) and a content management server 2925 (running an application such as DOCUMENTUM 4I ENTERPRISE CONTENT MANAGEMENT PLATFORM™ by Documentum, Inc.). The servers access databases storing varying data, such as databases 2905 and 2910.

Technical Aspects for Testing Information Comprehension of Users

In one embodiment, the quiz functionality may be split into two components; templates to be seen by the end-users, and authoring functionality seen by people in the workflow for publishing new content.

The quiz as seen by end-users may consist of a web page form containing questions and radio buttons. It may be generated using ASP from quiz questions, correct answers, incorrect answers and feedback stored in the database. The quiz may be linked to specific content within a CCS/CMS, such as a new notice. After reading the article, the user may need to take the quiz, and their score may be recorded using active server pages communicating with a database. The quiz may contain information to provide correct answers and feedback so that the user can be corrected if they click on an incorrect answer. In this way, the user may be educated about the correct answer and the system may track where users are failing to understand content.

The authoring of the quizes may be done in an authoring environment. In such an environment, writers may use active server pages to build the quiz page without knowledge of HTML or other web programming. For example: if the author is writing a new article, they can add a link in this article that links to the named quiz about this article. This is stored in the database as an associated link in that article. In the database, links like this are held in the article links table. The authoring environment may enable the write to enter: questions, correct and incorrect answers, correct explanations, feedback, and links to further information within the CCS/CMS content.

The quiz and its associated questions and feedback may be stored in the database with a quiz ID. The quiz ID may be used to link to the quiz from anywhere in the CCS/CMS system. In this way, the user's answers can be linked to the quiz and ASP reports run to pull out and format the quiz results.

Once authored, the quiz can be reused at a future date by simply linking to the quiz ID stored in the database.

Technical Aspects for Capturing Insight Of Superior Users

In illustrative embodiments, technically capturing insights of good performers breaks down into two main areas - capturing their feedback and re-publishing the feedback as a solution. The feedback can be captured at any time by using web based forms where users can input content and feedback according to a predefined template. In one embodiment, the most appropriate point at which to capture feedback is when users are reviewing KPI data. The KPI data itself can be extracted from an external system. The link to the feedback forms may be programmed to only appear when the KPI is at an appropriate level. This may be controlled by a flag in the database which sets the "expert" level. ASP web pages may interrogate the database and if the KPI data exceeds this flag then the link may be displayed.

Clicking on the link may load the appropriate feedback capture form. This feature may be controlled by the feedback ID. Once a feedback form is built, it may be allocated a feedback form ID in the database. In various embodiments such an ID may then be used in many other web pages to link to that appropriate feedback form.

When filled in, the form may collect information and store its fields in the database. The feedback/solution may then be reviewed by an editor who (if the solution is appropriate) can publish the solution. The solution is not automatically published on the website in one embodiment (even though this is an option) in order to allow rewording, reviewing and to ensure quality management. The articles generated may then go into the standard workflow for publishing.

Technical Aspects for Dynamically Ordering Solutions

In one embodiment of the invention, dynamically ordering solutions is controlled in two ways: (1) in response to usage figures which are stored in an Articles table in the database; or (2) manually by editors to "push" new content out to users. In the first solution, the CCS/CMS

may take the number of hits a given content article receives. This usage figure can be used to automatically order a list of most popular articles, a Top 10 list, etc. The Top 10 page may search through the usage field in the articles, find the most used articles, and add the associated object to the Top 10 list page. The Top 10 list may be held in the database in the Objects table so a particular object can be associated with a Top 10 list.

In order to publish information quickly, in various embodiments an editor can set the Top 10 page to pick up a new piece of content which has just been published and which is considered important. In this way, the search through the usage field in the database may be stopped and instead, the Top 10 list may be manually edited using an ASP-based administration page. This may update the Top 10 field in the objects table in the database with new Top 10 information.

The Top 10 display page in one embodiment of the invention may be an ASP page that contacts the database and pulls out the Top 10 information held in the "top 10" field in the Objects table.

Technical Aspects for Dual Information System For Contact Center Users

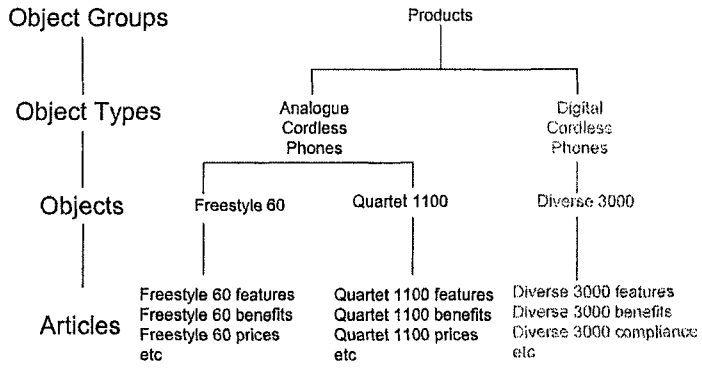
As one skilled in the art may recognize, the structuring of online and offline content is a design issue. The feature may be implemented in the web pages in the design of the portal web site. During the design, each content item may be designated as an online element or an offline element so that each element is assigned to the appropriate region of the dual information system.

Technical Aspects of a Content Management System For The Telecommunications Industry

The telecom taxonomy structure and headings have been previously discussed. This section shows how the taxonomy may be linked to and controls the way content may be added to a CCS/CMS. The basic structure of a CCS/CMS taxonomy can be explained with the following example:

I .

Taxonomy



The lowest denominator for content may be an "article". Articles typically consist of text that may be formatted for impact (bulleted text, bold or italic text, or colored text) or direction (hyperlinks to other Internet or intranet sites) or pictures. All articles have a unique number or "article ID".

For example, in the above example, article 1149 contains text dealing with the key features of the Freestyle 60 analogue cordless phone. Article 1149 is one of several articles on the Freestyle 60 phone (others cover subjects such as highlights of the phone, the phone's price, and the phone's availability). All of these articles belong to an object called Freestyle 60 which in this case is a phone. The number of articles (or features describing an object) and their type is defined in the taxonomy.

Freestyle 60 is one of several similar objects that describe analogue cordless phones. I.e., there are other similar objects in this case other analogue cordless phones. In order that all these analogue cordless phones can easily be located and compared, they are grouped together under an "object type ". In this case, the "object type" is called Analogue Cordless Phones. Many other object types can be defined. For example: Corded Phones, digital cordless phones or digital mobile phones may all be defined.

All object types (e.g. Analogue Cordless Phones, Digital Cordless Phones and Corded Phone) may belong to a common "object group" - which in this example is Products. Many other object groups can be defined, including services or procedures. For example, the object group of Services may group together and help define the characteristics of several object types such as discount schemes, payment options, tariffs, etc.

In the database, the taxonomy may be implemented as a set of tables: OBJECT_GROUPS, OBJECT_TYPES, OBJECTS and ARTICLES. As explained above, these tables hold the generic groupings for the taxonomy. When an object (such as a model of phone) is created, it is created within an object group (e.g. products) and an object type (e.g. analogue cordless phones). In the database, this structure may be implemented using a datafield Object_type in the Objects table. This links to the Objects_type table which in turn may link to the Object_Groups table. Thus, the place of a specific object within the taxonomy is tracked.

One skilled in the art therefore may understand that when a new object is created, in various embodiments the taxonomy automatically creates all the associated articles required to fully describe that object. For example, if a new analogue cordless phone is created, in various embodiments a CCS/CMS automatically creates a set of empty articles to completely describe this phone. In various embodiments these are then filled in by a writer.

Technical Aspects for Content Feedback In A Multiple-Owner Content Management

Using web-based forms generated from the database the system can capture a wide variety of feedback. This includes (but is not limited to):

(1) Feedback on content - such as accuracy, additions to content, amendments;

(2) Feedback on user generated solutions - ways in which users have managed to obtain high KPI's, local tricks and tips, user insights; and

(3) Feedback on use - where content has been particularly helpful or unhelpful, general ideas about new content.

From technical point of view, all these feedback types are very similar. The feedback form may be authored and may have a feedback form ID stored in the database. This ID can then be used to link to an appropriate feedback form at any point in the system. When a user fills in a feedback form, the information may be recorded in the database so that a member of the authoring process can review the feedback items using ASP-based reports.

Depending upon the type of feedback, the editor may wish to respond directly to the user or may use the authoring environment to publish a new piece of content. This can be done in response to request for new content or in response to new content in the form of a user solution. These contact items then enter the publishing workflow just like any other new piece of content. The technical components to enable this functionality may use ASP-based forms

and web pages which are generated from a database.

Technical Aspects for Communicating Solution Information in a Knowledge Management System

In at least one embodiment, the expert solutions taxonomy is technically implemented in the same way as the telecom taxonomy. This is detailed in the above section. In a similar manner to the telecom taxonomy, the expert solutions taxonomy may define a structure for the expert solutions to categorize them and to allow users to quickly and easily find expert solutions.

In the expert solutions taxonomy, the database may use generic tables for holding the taxonomy structure. These may be, for example, object_groups, object_types, objects and articles. In this way, the expert solutions taxonomy can be seen as a subset of the telecom taxonomy from a technical viewpoint.

The expert solutions may be authored in the same way as other content. An expert solutions object may be created, such as "Customer can smell natural gas," for example. The articles generated by the creation of this object may then be written, approved and published in the same manner as for other content. The articles may be generated by the taxonomy as detailed in the above database tables.

Technical Aspects for Presenting Linked Information In A CRM System

As shown in Figure 26, the system can be integrated with CRM applications. Since many CRM applications now have web-based user interfaces (such as Siebel 7) this integration can be completed using protocols (such as HTML and XML) that allow the system to integrate with many differing CRM applications. The knowledge management (KM) system can be set to display information relevant to the task currently being performed in the CRM application.

In one embodiment, each screen in the CRM application is allocated an ID and tasks which are associated with each screen are also associated with the ID. This context information (or tokens) can be passed to the knowledge management system in order for it to understand which content to show which is linked to the task currently being undertaken.

The tokens can take several forms, from URL's and hyperlinks to keywords or task ID's. The URL's can be added to the CRM system. These will link directly to the specific content in the KM system and are used to pull up relevant information when a particular CRM screen is

used. In various embodiments a more flexible method is to pass a token based on a task ID or keyword. The token may then be compared in the KM database with associated content objects. Each token (such as a keyword) can be associated with multiple objects thus allowing a richer display of content for each CRM screen.

In one embodiment of the invention, tokens (such as keywords) are implemented in a CCS/CMS database and can be found in the keywords table. These are linked to objects using the object ID and so can be used to display content information which is associated with the keywords. In such embodiments, the database can easily be updated using the authoring environment to link the keywords to different content objects or to create new keywords thus giving additional flexibility to the system.

In such embodiments, a method can be used to link not just to CRM but to many other types of systems. In one embodiment of the invention, a CCS/CMS system is linked to a voice recognition (VR) system using this technique. The VR system can recognize words that cause it to send of requests for keywords to the CCS/CMS system. The CCS/CMS then displays information based on the keywords requested.

Technical Aspects for Enforcing Template Completion When Publishing To A Content

In one embodiment of the invention, a web page built using ASP is used to commission a new object, such as a phone or a discount scheme. This creates a new entry into the Object table in the database. When an object is created, the taxonomy in the database describes the number and type of articles that need to be created in order to describe this type of object. For example, an object such as an analogue cordless phone requires 12 articles to fully describe this object. These articles include a highlights/overview article, an Exclusions article and a Benefits article. These types of articles have templates associated with them which force the writer to include the correct type of information when inputting the content. Other types of articles (for example a compliance article) have a different template associated with them requiring different information to be input.

In the database, when an object is created in the Object table it may fire a trigger to generate entries in the Articles table, one for each required article. As can be seen in the database diagram of Figure XYZ, each object is identified by a number (Object ID) and this links to the articles (article ID) via the Links table.

A Task ID may also be created in the Tasks table. This ID links to each article and is set so that each article is set to require a writer to enter content for the article. This controls the workflow of the article and will make the article appear in the task list of a writer. In this way, in various embodiments all the required articles to describe an object are created without the need for this to be remembered by those creating the content.

Technical Aspects for Ensuring Completeness When Publishing To A Content Management System

This section describes how one embodiment of a CCS/CMS assists publishing by forcing all articles (which describe a particular object) to be written and reviewed before the object (such as a phone) is allowed to be published. In such embodiments this prevents publishing of incomplete or un-reviewed information.

Each object (such as a digital cordless phone) has a defined set of associated articles to describe it. In the database, the Object is linked to the Articles via the Links table. Thus, using the Object_ID one can find the associated articles. In various embodiments, in order to ensure articles are only published when they have been commissioned, written, and reviewed, each article has an associated Task ID held in the Tasks table. As the articles are written and reviewed, the task status is updated. Only when a complete set of articles associated with a particular object ID have the correct task status (i.e. approved) will the object be available for publishing to the live environment. Web pages developed using ASP may be used to interact with the database in order to update the status of the articles and so control assisted publishing.

Technical Aspects for Searching Within A Contact Center Portal

In one embodiment of the invention, the continuum of search functions allows users to search by: a hierarchical categorization based on the content taxonomy; an alphanumeric index; customer needs; pre-defined key words; and free text search. While some of the technical aspects of each of the separate searches have been implemented in prior systems, in embodiments of the invention, users may use a preferred (or most appropriate) search mechanism for their needs, while allowing for a wider and wider search of information if the initial search does not result in the proper information. In various embodiments the searches themselves are implemented as follows (in one of the embodiments):

(A) The hierarchical categorization search may be generated from the content taxonomy which

is stored in the database in the object_groups, object_types and objects tables as explained in the technical aspects of the telecom taxonomy section. ASP pages may take this structure and the objects contained within it and display them as a series of fly out menus. Users can click on the menus to select a particular object such as a phone.

(B) The alphabetic index searches on the first letter of the title of an object (e.g. searching on F produces Freestyle 60 and Friends and Family). These returned objects are listed as hyperlinks which link to the Object id. Clicking on the link causes an ASP page to interrogate the database for the articles associated with the object and display them.

(C) The Customer Needs search can allow users to quickly find objects linked to a particular need or life event of a customer. For example, a landlord may have a complex request when a tenant moves out which involves several procedures, services and products. The Customer Needs search groups these objects together.

(D) The pre-defined key words are added to the system as part of the authoring process. When a new piece of work is commissioned, the supplier adds keywords that the supplier thinks will be required to quickly search for this content. The supplier can also link to existing key words. For example, the "Call Barring" keyword brings back service objects which include the call barring service and procedure objects to do with switching this service on or off.

Keywords can be linked to objects using the Keywords table in the database. Clicking on a keyword causes the system to search for the Object ID associated with the keywords and return links to these objects. Clicking on the links causes the full object and associated articles to be displayed.

(E) The free text search can be enabled using Microsoft Index server but will work with any search engine. The index server searches on the text held in files that have been specially generated by the database. These files can be of any format, including htm, xml, asp or text. The generated files can contain text describing the object as entered during the authoring process and the object id associated with the content. The search engine can return a page listing the objects which contain the searched for text. Clicking on the link shows the full object and associated content articles.

The foregoing description addresses embodiments encompassing the principles of the present invention. The embodiments may be changed, modified and/or implemented using

various types of arrangements. Those skilled in the art will readily recognize various modifications and changes that may be made to the invention without strictly following the exemplary embodiments and applications illustrated and described herein, and without departing from the scope of the invention, which is set forth in the following claims.

It is to be understood that any result or advantage referenced in the specification is not intended to be an explicit promise that the specific result or advantage will necessarily be achieved by all embodiments of the invention. Instead, the invention is defined solely by the accompanying claims.

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAMED ARE DEFINED AS FOLLOWS:

1. A method for capturing insight of a user of a contact center portal displayed on a user computer, the user computer being in communication with at least one processor in a computer network, the method comprising:

causing the at least one processor to record performance data for a plurality of calls participated in by the user;

causing the at least one processor to determine a user key performance indicator (KPI) associated with the user based at least in part on the recorded performance data for the plurality of calls;

causing the at least one processor to determine whether the user KPI meets or exceeds a reference KPI;

causing the user computer to display a user insight input window when the user KPI meets or exceeds the reference KPI, the user insight input window being operable to receive user input from the user of at least one reason why the user performs exceptionally well; and

causing the at least one reason to be stored in a database in communication with the computer network.

2 The method of claim **1**, the method further comprising causing the at least one processor to read the reference KPI.

3. The method of claim **2**, wherein causing the at least one processor to read the reference KPI comprises causing the at least one processor to read an average of user KPIs associated with a plurality of users of the contact center portal.

4. The method of claim **2**, wherein causing the at least one processor to read the reference KPI comprises causing the at least one processor to read a predetermined minimum KPI.

Date Reçue/Date Received 2021-08-06

5. The method of any one of claims **1** to **4**, further comprising causing a flag stored in the database to be set to indicate that the user KPI meets or exceeds the reference KPI.

6. The method of claim **5**, wherein causing the user computer to display the user insight input window comprises:

reading the flag in the database; and

causing the user computer to display the user insight input window when the flag is set.

7. The method of any one of claims **1** to **6**, further comprising causing another user computer to display the at least one reason in response to a user of the other user computer requesting display of their user KPI.

8. The method of claim **7**, wherein causing the other user computer to display the at least one reason comprises causing the other user computer to display the at least one reason when the other user has a user KPI that does not meet or exceed the reference KPI.

9. The method of any one of claims **1** to **8**, further comprising causing the user computer to display the user KPI.

10. The method of any one of claims **1** to **9**, wherein causing the user computer to display the user KPI comprises causing the user computer to display at least one of:

a graph of the user KPI, and

a graph of the reference KPI.

11. The method of any one of claims **1** to **10**, further comprising causing the at least one reason provided by the user to be sent to a facilitator for process improvement.

12. The method of any one of claims **1** to **11**, further comprising:

Date Reçue/Date Received 2021-08-06

causing the at least one reason to be sent to a reviewer; and

publishing the at least one reason when the reviewer has approved the reason for publication.

13. The method of any one of claims **1** to **12**, further comprising providing corrective material to the user if the user KPI is worse than or the same as the reference KPI.

14. The method of any one of claims **1** to **13**, wherein the at least one processor comprises a web server in the computer network and in communication with the user computer.

15. The method of any one of claims **1** to **13**, wherein the at least one processor is a component of the user computer.

16. The method of any one of claims **1** to **15**, wherein the user KPI measures performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user.

17. A computer readable medium encoded with codes for directing a computer processor circuit to carry out any of the methods of claims **1** to **16**.

18. A system for capturing insight of a user of a contact center portal displayed on a user computer, the user computer being in communication with at least one processor in a computer network, the system comprising:

means for causing the at least one processor to record performance data for a plurality of calls participated in by the user;

means for causing the at least one processor to determine a user key performance indicator (KPI) associated with the user based at least in part on the recorded performance data for the plurality of calls; and

means for causing the at least one processor to determine whether the user KPI meets or exceeds a reference KPI;

means for causing the user computer to display a user insight input window when the user KPI meets or exceeds the reference KPI, the user insight input window being operable to receive input from the user of at least one reason why the user performs exceptionally well; and

means for causing the at least one reason to be stored in a database in communication with the computer network.

19. The system of claim **18**, further comprising means for causing the at least one processor to read the reference KPI.

20. The system of claim **19**, wherein the means for causing the at least one processor to read the reference KPI comprises means for causing the at least one processor to read an average of user KPIs associated with a plurality of users of the contact center portal.

21. The system of claim **19**, wherein the means for causing the at least one processor to read the reference KPI comprises means for causing the at least one processor to read a predetermined minimum KPI.

22. The system of any one of claims **18** to **21**, further comprising means for causing a flag stored in the database to be set to indicate that the user KPI meets or exceeds the reference KPI.

23. The system of claim **22**, wherein the means for causing the user computer to display the user insight input window comprises:

means for reading the flag in the database; and

means for causing the user computer to display the user insight input window when the flag is set.

Date Reçue/Date Received 2021-08-06

24. The system of any one of claims **18** to **23**, further comprising means for causing another user computer to display the at least one reason in response to a user of the other user computer requesting display of their user KPI.

25. The system of claim **24**, wherein the means for causing the other user computer to display the at least one reason comprises means for causing the other user computer display the at least one reason when the other user has a user KPI that does not meet or exceed the reference KPI.

26. The system of any one of claims **18** to **25**, further comprising means for causing the user computer to display the user KPI.

27. The system of claim **26**, wherein the means for causing the user computer to display the user KPI comprises means for causing the user computer to display at least one of:

a graph of the user KPI, and

a graph of the reference KPI.

28. The system of any one of claims **18** to **27**, further comprising means for causing the at least one reason provided by the user to be sent to a facilitator for process improvement.

29. The system of any one of claims **18** to **28**, further comprising:

means for causing the at least one reason to be sent to a reviewer; and

means for publishing the at least on reason when the reviewer has approved the reason for publication.

30. The system of any one of claims **18** to **29**, further comprising means for providing corrective material to the user if the user KPI is worse than or the same as the reference KPI.

Date Reçue/Date Received 2021-08-06

31. The system of any one of claims **18** to **30**, wherein the at least one processor comprises a web server in the computer network and in communication with the user computer.

32. The system of any one of claims **18** to **31**, wherein the at least one processor is a component of the user computer.

33. The system of any one of claims **18** to **32**, wherein the user KPI measures performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user.

34. A system for capturing insight of a user of a contact center portal, the system comprising:

a user computer operably configured to display the contact center portal, the user computer in communication with a computer network;

at least one processor in communication with the computer network, the at least one processor being operably configured to:

record performance data for a plurality of calls participated in by the user;

determine a user key performance indicator (KPI) associated with the user based at least in part on the recorded performance data for the plurality of calls;

determine whether the user KPI meets or exceeds a reference KPI;

cause the user computer to display a user insight input window when the user KPI meets or exceeds the reference KPI, the user insight input window being operable to receive input from the user of at least one reason why the user performs exceptionally well; and

Date Reçue/Date Received 2021-08-06

cause the at least one reason to be stored in a database in communication with the computer network.

35. The system of claim **34**, wherein the at least one processor is further operably configured to read the reference KPI.

36. The system of claim **35**, wherein the at least one processor is operably configured to read the reference KPI by being operably configured to read an average of user KPIs associated with a plurality of users of the contact center portal.

37. The system of claim **35**, wherein said at least one processor is operably configured to read the reference KPI by being operably configured to read a predetermined minimum KPI.

38. The system of any one of claims **34** to **37**, wherein the at least one processor is further operably configured to cause a flag stored in the database to be set to indicate that the user KPI meets or exceeds the reference KPI.

39. The system of claim **38**, wherein the at least one processor is operably configured to cause the user computer to display the user insight input window by being operably configured to:

read the flag in the database; and

cause the user computer to display the user insight input window when the flag is set.

40. The system of any one of claims **34** to **39**, wherein the at least one processor is further operably configured to cause another user computer to display the at least one reason in response to a user of the other user computer requesting display of their user KPI.

41. The system of claim **40**, wherein the at least one processor is operably configured to cause the other user computer display the at least one reason by being operably configured to cause the other user computer to display the at least one reason when the other user has a user KPI that does not meet or exceed the reference KPI.

Date Reçue/Date Received 2021-08-06

42. The system of any one of claims **34** to **41**, wherein the at least one processor is further operably configured to cause the user computer to display the user KPI.

43. The system of claim **42**, wherein the at least one processor is operably configured to cause the user computer to display the user KPI by being operably configured to cause the user computer to display at least one of:

a graph of the user KPI, and

a graph of the reference KPI.

44. The system of any one of claims **34** to **43**, wherein the at least one processor is operably configured to cause the at least one reason provided by the user to be sent to a facilitator for process improvement.

45. The system of any one of claims **34** to **44**, wherein the at least one processor is operably configured to:

cause the at least one reason to be sent to a reviewer; and

publish the at least one reason when the reviewer has approved the at least one reason for publication.

46. The system of any one of claims **34** to **45**, wherein the at least one processor is operably configured to provide corrective material to the user if the user KPI is worse than or the same as the reference KPI.

47. The system of any one of claims **34** to **46**, wherein the at least one processor comprises a web server in the computer network and in communication with the user computer.

48. The system of any one of claims **34** to **47**, wherein the at least one processor is a component of the user computer.

49. The system of any one of claims **34** to **48**, wherein the user KPI measures performance of the user based on a defined performance objective, the defined

Date Reçue/Date Received 2021-08-06

performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user.

50. A web-based method for capturing insight of a user performing at a superior level within a contact center, comprising:

recording performance data for a plurality of calls participated in by the user within the contact center using a computer;

computing a user key performance indicator (KPI) for the user, using the computer, based on the performance data recorded from the plurality of calls, the user KPI measuring performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user;

comparing a difference between the user KPI and a reference KPI, using the computer;

querying the user to provide insight, via a first interface, when the user KPI exceeds the reference KPI, including:

displaying to the user an option to provide insight when the user KPI exceeds the reference KPI;

presenting a template selected from a plurality of templates to the user responsive to the user selecting the option to provide insight, the plurality of templates relating to at least one reason that the user KPI exceeds the reference KPI;

assigning each of the plurality of templates to different users selecting the option to provide insight;

Date Reçue/Date Received 2021-08-06

storing each template completed by each user providing insight; and

determining when the plurality of templates are completed by the users providing insight; and

providing corrective material to the user, via a second interface, when the user KPI does not exceed the reference KPI, wherein the corrective material is derived from insight provided by users whose user KPI exceeds the reference KPI.

51. The method of claim **50**, further comprising sending the insight to a facilitator for process improvement.

52. The method of claim **50** or **51**, further comprising routing the insight to a reviewer, wherein the reviewer reviews and publishes the insight to a user environment.

53. The method of any one of claims **50** to **52**, further comprising graphing the reference KPI.

54. The method of any one of claims **50** to **53**, further comprising graphing the user KPI.

55. The method of any one of claims **50** to **54**, wherein the reference KPI is an average of KPIs for a plurality of users.

56. The method of any one of claims **50** to **54**, wherein the reference KPI is a predetermined minimum.

57. The method of any one of claims **50** to **56**, wherein querying the user to provide insight further comprises generating a task for completion of the template assigned to the user.

58. The method of any one of claims **50** to **57**, further comprising tracking a progress of completion of the each of the plurality of templates.

59. A system for capturing insight of a user performing at a superior level within a contact center, comprising:

Date Reçue/Date Received 2021-08-06

a recording unit for recording performance data for a plurality of calls participated in by the user within the contact center;

a computer for computing a user key performance indicator (KPI) for the user based on the performance data recorded from the plurality of calls, the user KPI measuring performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user;

a comparator for comparing a difference between the user KPI and a reference KPI;

a query unit for querying the user to provide insight when the user KPI exceeds the reference KPI, including:

displaying to the user an option to provide insight when the user KPI exceeds the reference KPI;

presenting a template selected from a plurality of templates to the user responsive to the user selecting the option to provide insight, the plurality of templates relating to at least one reason that the user KPI exceeds the reference KPI;

assigning each of the plurality of templates to different users selecting the option to provide insight;

storing each template completed by each user providing insight; and

determining when the plurality of templates are completed by the users providing insight; and

a correction unit for providing corrective material to the user when the user KPI does not exceed the reference KPI, wherein the corrective material is

derived from insight provided by users whose user KPI exceeds the reference KPI.

60. The system of claim **59**, further comprising a sending unit for sending the insight to a facilitator for process improvement.

61. The system of claim **59** or **60**, further comprising a router for routing the insight to a reviewer, wherein the reviewer reviews and publishes the insight to a user environment.

62. The system of any one of claims **59** to **61**, further comprising a first graphing unit for graphing the reference KPI.

63. The system of any one of claims **59** to **62**, further comprising a second graphing unit for graphing the user KPI.

64. The system of any one of claims **59** to **63**, wherein the reference KPI is an average of KPIs for a plurality of users.

65. The system of any one of claims **59** to **63**, wherein the reference KPI is a predetermined minimum.

66. The system of any one of claims **59** to **65**, wherein the query unit for querying the user to provide insight further generates a task for completion of the template assigned to the user.

67. The system of any one of claims **59** to **66**, further comprising a tracking unit for tracking a progress of completion of the each of the plurality of templates.

68. A computer readable medium having stored thereon code for execution by a computer to capture insight of a user performing at a superior level within a contact center, the code comprising:

a code segment for recording performance data for a plurality of calls participated in by the user within the contact center;

a code segment for computing a user key performance indicator (KPI) for the user based on the performance data recorded from the plurality of calls, the user KPI measuring performance of the user based on a defined performance objective, the defined performance objective including at least one of an average talk time of the user, an average wrap time of the plurality of calls, a first number representing calls resolved, and a second number representing calls requiring a transfer from the user;

a code segment for comparing a difference between the user KPI and a reference KPI;

a code segment for querying the user to provide insight when the user KPI exceeds the reference KPI, said querying including the steps of:

displaying to the user an option to provide insight when the user KPI exceeds the reference KPI;

presenting a template selected from a plurality of templates to the user responsive to the user selecting the option to provide insight, the plurality of templates relating to at least one reason that the user KPI exceeds the reference KPI;

assigning each of the plurality of templates to different users selecting the option to provide insight;

storing each template completed by each user providing insight; and

determining when the plurality of templates are completed by the users providing insight; and

a code segment for providing corrective material to the user when the user KPI does not exceed the reference KPI, wherein the corrective material is derived from insight provided by users whose user KPI exceeds the reference KPI.

Date Reçue/Date Received 2021-08-06

69. The computer readable medium of claim **68**, the code further comprising a code segment for sending the insight to a facilitator for process improvement.

70. The computer readable medium of claim **68** or **69**, the code further comprising a code segment for routing the insight to a reviewer, wherein the reviewer reviews and publishes the insight to a user environment.

71. The computer readable medium of any one of claims **68** to **70**, the code further comprising a code segment for graphing the reference KPI.

72. The computer readable medium of any one of claims **68** to **71**, the code further comprising a code segment for graphing the user KPI.

73. The computer readable medium of any one of claims **68** to **72**, wherein the reference KPI is an average of KPIs for a plurality of users.

74. The computer readable medium of any one of claims **68** to **72**, wherein the reference KPI is a predetermined minimum.

75. The computer readable medium of any one of claims **68** to **74**, wherein the code segment for querying the user to provide insight further comprises a code segment for generating a task for completion of the template assigned to the user.

76. The computer readable medium of any one of claims **68** to **75**, the code further comprising a code segment for tracking a progress of completion of the each of the plurality of templates.

Date Reçue/Date Received 2021-08-06

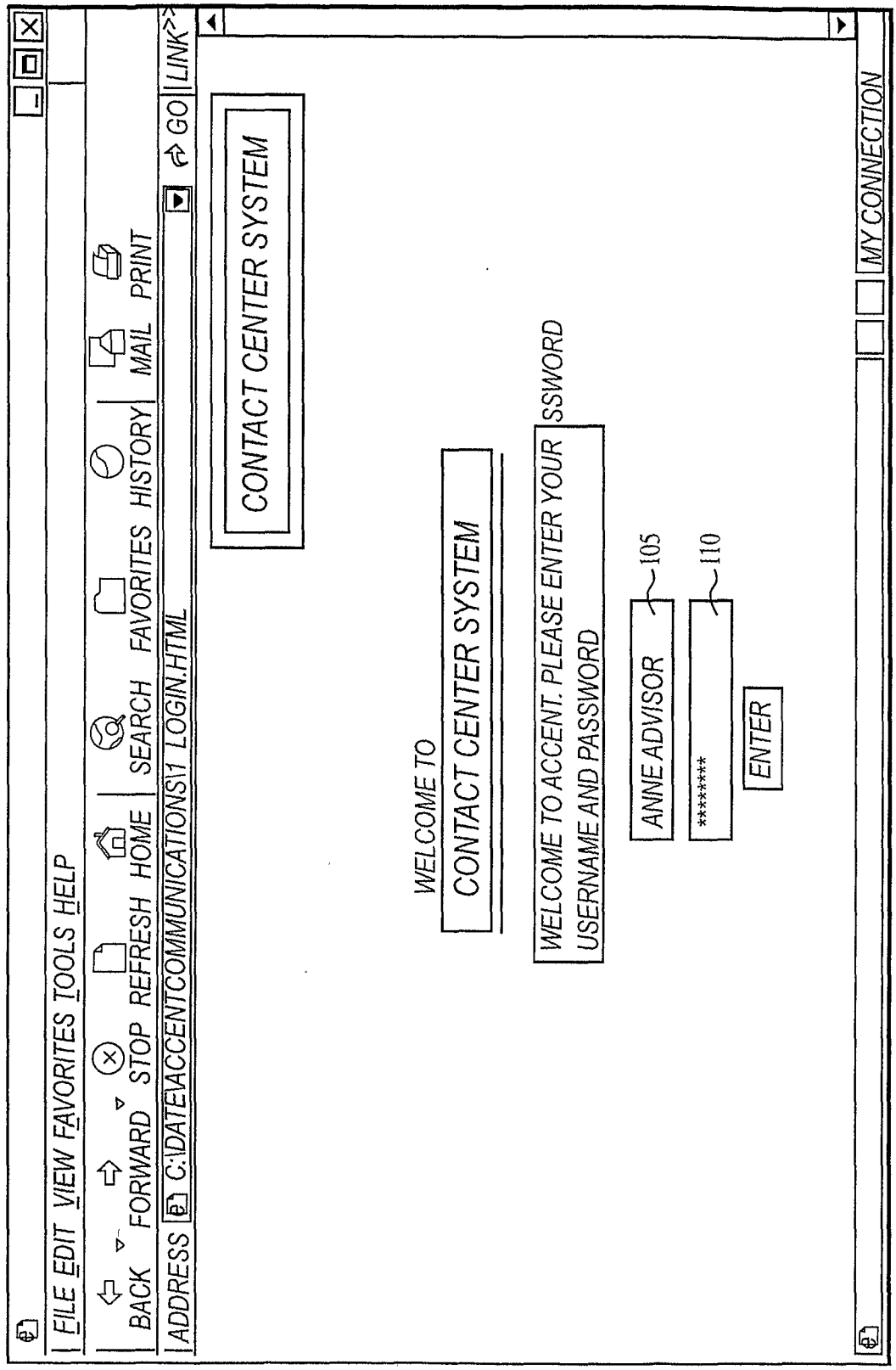

FILE EDIT VIEW FAVORITES TOOLS HELP
BACK FORWARD STOP REFRESH HOME SEARCH FAVORITES HISTORY MAIL PRINT
ADDRESS C:\DATE\ACCENTCOMMUNICATIONS\1 LOGIN.HTML
GO
LINK
CONTACT CENTER SYSTEM
WELCOME TO
CONTACT CENTER SYSTEM
WELCOME TO ACCENT. PLEASE ENTER YOUR USERNAME AND PASSWORD
SSWORD
ANNE ADVISOR
105
****
110
ENTER
MY CONNECTION

FIG. 1

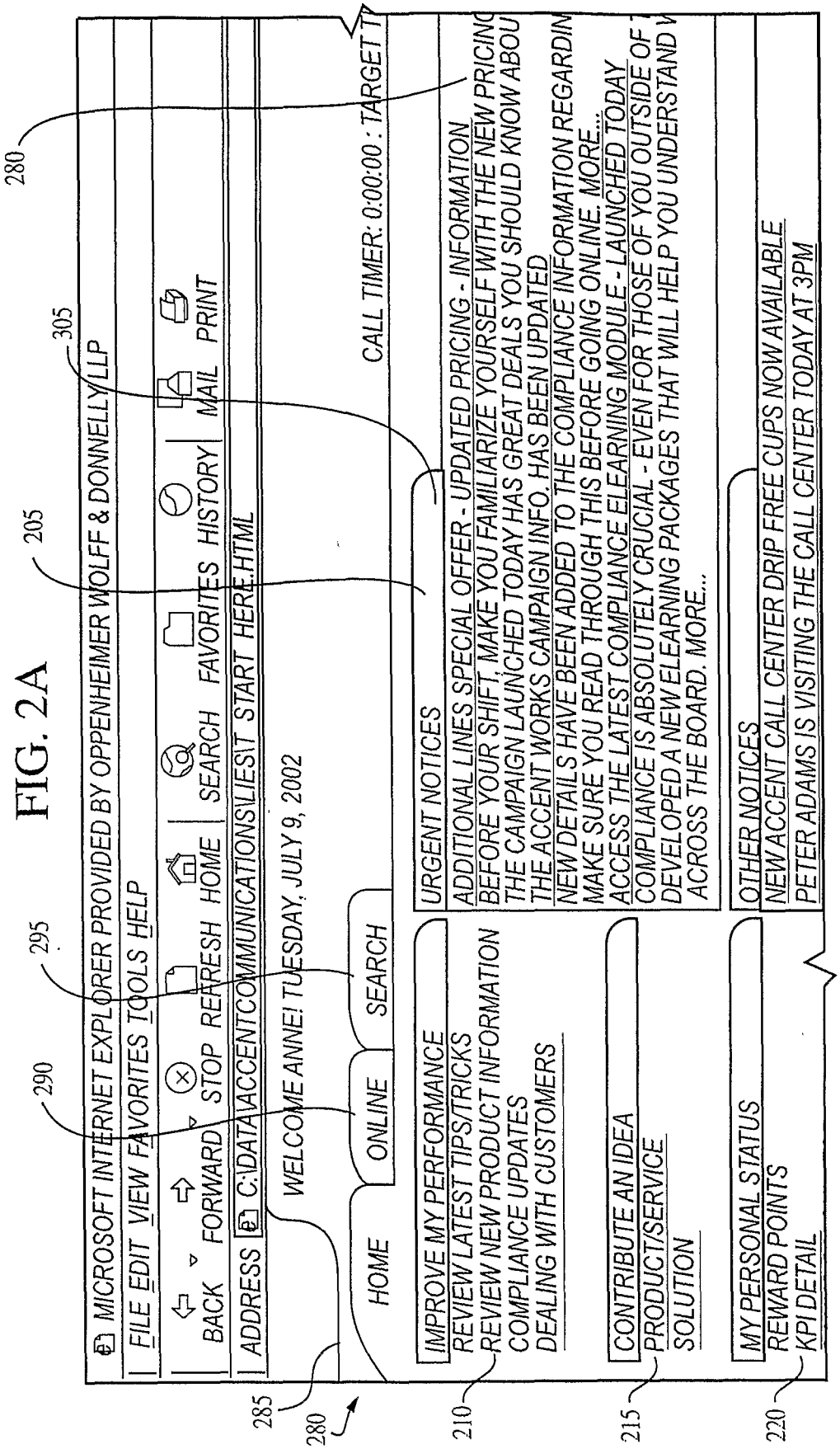
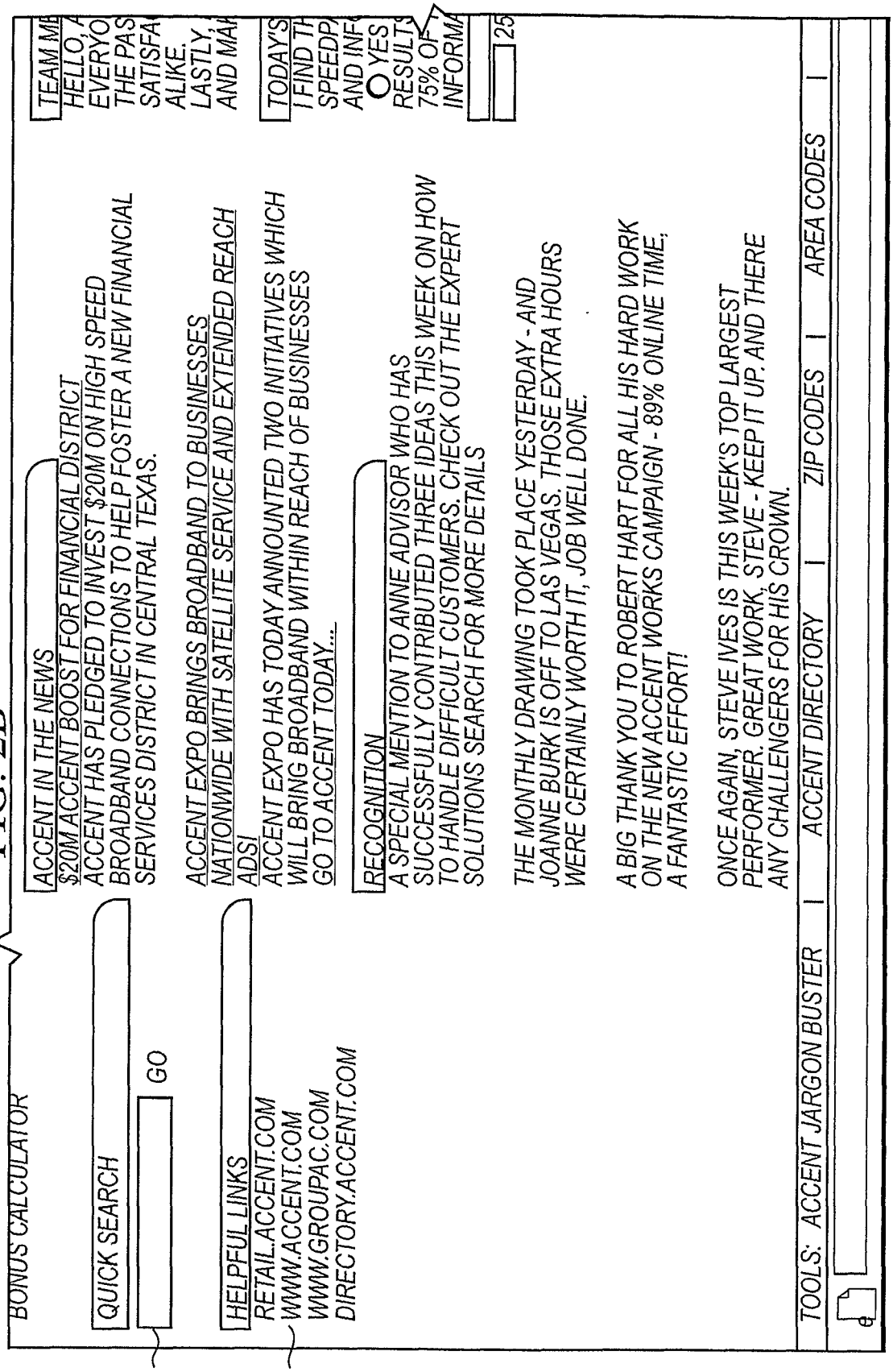

MICROSOFT INTERNET EXPLORER PROVIDED BY OPPENHEIMER WOLFF & DONNELLY LLP
FILE EDIT VIEW FAVORITES TOOLS HELP
BACK FORWARD STOP REFRESH HOME SEARCH FAVORITES HISTORY MAIL PRINT
ADDRESS C:\DATA\ACCENTCOMMUNICATIONS\LIES\1 START HERE.HTML
CALL TIMER: 0:00:00 : TARGET T
WELCOME ANNE! TUESDAY, JULY 9, 2002
HOME
ONLINE
SEARCH
URGENT NOTICES
ADDITIONAL LINES SPECIAL OFFER - UPDATED PRICING - INFORMATION
BEFORE YOUR SHIFT, MAKE YOU FAMILIARIZE YOURSELF WITH THE NEW PRICING
THE CAMPAIGN LAUNCHED TODAY HAS GREAT DEALS YOU SHOULD KNOW ABOU
THE ACCENT WORKS CAMPAIGN INFO. HAS BEEN UPDATED
NEW DETAILS HAVE BEEN ADDED TO THE COMPLIANCE INFORMATION REGARDIN
MAKE SURE YOU READ THROUGH THIS BEFORE GOING ONLINE. MORE...
ACCESS THE LATEST COMPLIANCE ELEARNING MODULE - LAUNCHED TODAY
COMPLIANCE IS ABSOLUTELY CRUCIAL - EVEN FOR THOSE OF YOU OUTSIDE OF
DEVELOPED A NEW ELEARNING PACKAGES THAT WILL HELP YOU UNDERSTAND W
ACROSS THE BOARD. MORE...
IMPROVE MY PERFORMANCE
REVIEW LATEST TIPS/TRICKS
REVIEW NEW PRODUCT INFORMATION
COMPLIANCE UPDATES
DEALING WITH CUSTOMERS
CONTRIBUTE AN IDEA
PRODUCT/SERVICE
SOLUTION
MY PERSONAL STATUS
REWARD POINTS
KPI DETAIL
OTHER NOTICES
NEW ACCENT CALL CENTER DRIP FREE CUPS NOW AVAILABLE
PETER ADAMS IS VISITING THE CALL CENTER TODAY AT 3PM
280
205
305
295
290
285
280
210
215
220

FIG. 2A

FIG. 2B


BONUS CALCULATOR
QUICK SEARCH
GO
HELPFUL LINKS
RETAIL.ACCENT.COM
WWW.ACCENT.COM
WWW.GROUPAC.COM
DIRECTORY.ACCENT.COM
ACCENT IN THE NEWS
$20M ACCENT BOOST FOR FINANCIAL DISTRICT
ACCENT HAS PLEDGED TO INVEST $20M ON HIGH SPEED BROADBAND CONNECTIONS TO HELP FOSTER A NEW FINANCIAL SERVICES DISTRICT IN CENTRAL TEXAS.
ACCENT EXPO BRINGS BROADBAND TO BUSINESSES NATIONWIDE WITH SATELLITE SERVICE AND EXTENDED REACH ADSI
ACCENT EXPO HAS TODAY ANNOUNTED TWO INITIATIVES WHICH WILL BRING BROADBAND WITHIN REACH OF BUSINESSES GO TO ACCENT TODAY...
RECOGNITION
A SPECIAL MENTION TO ANNE ADVISOR WHO HAS SUCCESSFULLY CONTRIBUTED THREE IDEAS THIS WEEK ON HOW TO HANDLE DIFFICULT CUSTOMERS. CHECK OUT THE EXPERT SOLUTIONS SEARCH FOR MORE DETAILS
THE MONTHLY DRAWING TOOK PLACE YESTERDAY - AND JOANNE BURK IS OFF TO LAS VEGAS. THOSE EXTRA HOURS WERE CERTAINLY WORTH IT, JOB WELL DONE.
A BIG THANK YOU TO ROBERT HART FOR ALL HIS HARD WORK ON THE NEW ACCENT WORKS CAMPAIGN - 89% ONLINE TIME; A FANTASTIC EFFORT!
ONCE AGAIN, STEVE IVES IS THIS WEEK'S TOP LARGEST PERFORMER. GREAT WORK, STEVE - KEEP IT UP. AND THERE ANY CHALLENGERS FOR HIS CROWN.
TEAM ME
HELLO, A
EVERYO
THE PAS
SATISFA
ALIKE.
LASTLY,
AND MA
TODAY'S
I FIND TH
SPEEDP
AND INF
YES
RESULTS
75% OF
INFORMA
25
TOOLS: ACCENT JARGON BUSTER | ACCENT DIRECTORY | ZIP CODES | AREA CODES |
225
230

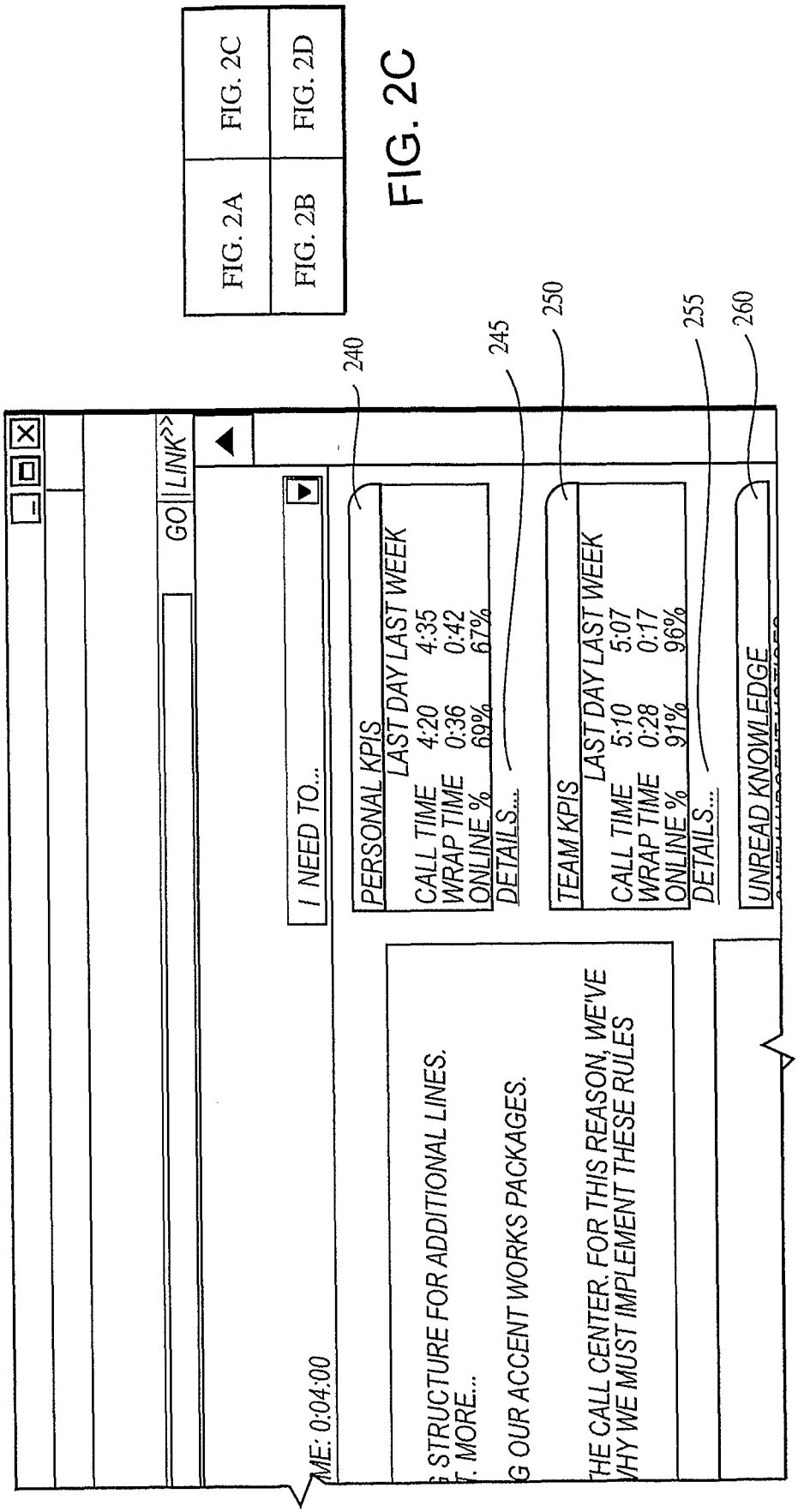


FIG. 2A
FIG. 2B
FIG. 2C
FIG. 2D
240
245
250
255
260
GO
LINK>>
I NEED TO...
PERSONAL KPIS
LAST DAY LAST WEEK
CALL TIME 4:20 4:35
WRAP TIME 0:36 0:42
ONLINE % 69% 67%
DETAILS...
TEAM KPIS
LAST DAY LAST WEEK
CALL TIME 5:10 5:07
WRAP TIME 0:28 0:17
ONLINE % 91% 96%
DETAILS...
UNREAD KNOWLEDGE
ME: 0:04:00
STRUCTURE FOR ADDITIONAL LINES.
T. MORE...
G OUR ACCENT WORKS PACKAGES.
THE CALL CENTER. FOR THIS REASON, WE'VE
HY WE MUST IMPLEMENT THESE RULES

FIG. 2C

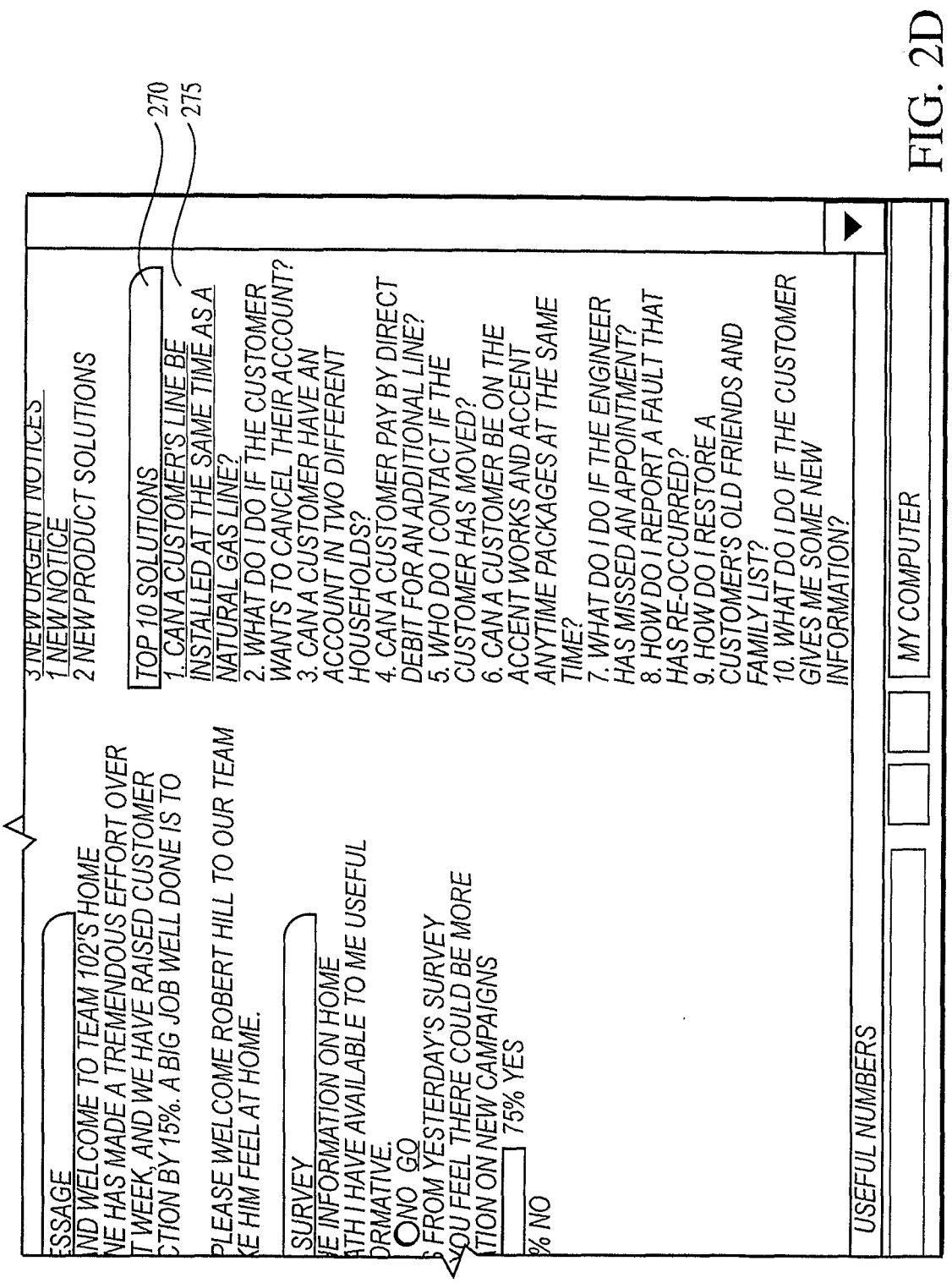
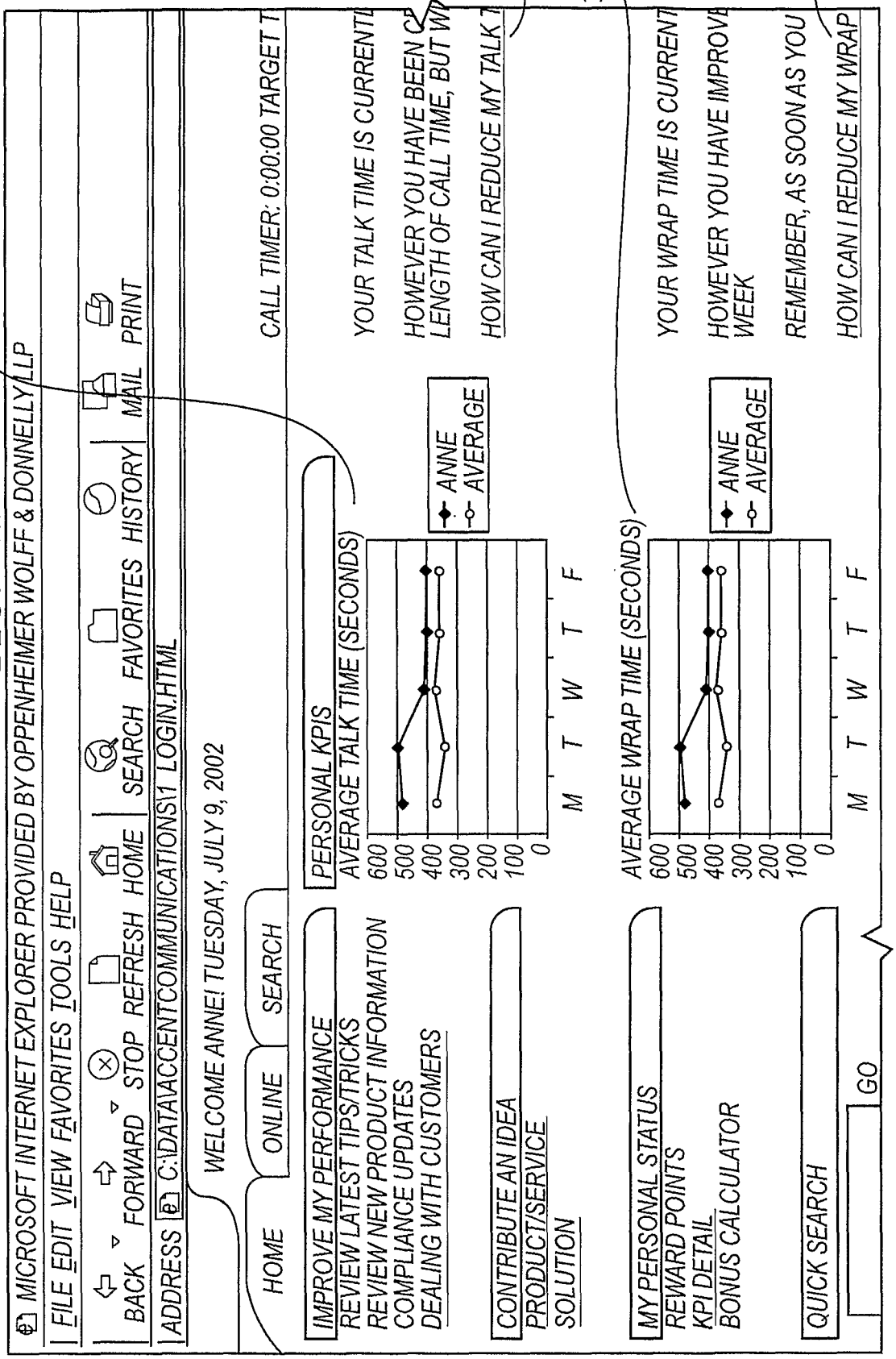

3 NEW URGENT NOTICES
1 NEW NOTICE
2 NEW PRODUCT SOLUTIONS
TOP 10 SOLUTIONS
1. CAN A CUSTOMER'S LINE BE INSTALLED AT THE SAME TIME AS A NATURAL GAS LINE?
2. WHAT DO I DO IF THE CUSTOMER WANTS TO CANCEL THEIR ACCOUNT?
3. CAN A CUSTOMER HAVE AN ACCOUNT IN TWO DIFFERENT HOUSEHOLDS?
4. CAN A CUSTOMER PAY BY DIRECT DEBIT FOR AN ADDITIONAL LINE?
5. WHO DO I CONTACT IF THE CUSTOMER HAS MOVED?
6. CAN A CUSTOMER BE ON THE ACCENT WORKS AND ACCENT ANYTIME PACKAGES AT THE SAME TIME?
7. WHAT DO I DO IF THE ENGINEER HAS MISSED AN APPOINTMENT?
8. HOW DO I REPORT A FAULT THAT HAS RE-OCCURRED?
9. HOW DO I RESTORE A CUSTOMER'S OLD FRIENDS AND FAMILY LIST?
10. WHAT DO I DO IF THE CUSTOMER GIVES ME SOME NEW INFORMATION?
270
275
ESSAGE
ND WELCOME TO TEAM 102'S HOME
NE HAS MADE A TREMENDOUS EFFORT OVER
T WEEK, AND WE HAVE RAISED CUSTOMER
CTION BY 15%. A BIG JOB WELL DONE IS TO
PLEASE WELCOME ROBERT HILL TO OUR TEAM
KE HIM FEEL AT HOME.
SURVEY
E INFORMATION ON HOME
TH I HAVE AVAILABLE TO ME USEFUL
RMATIVE.
NO GO
FROM YESTERDAY'S SURVEY
OU FEEL THERE COULD BE MORE
TION ON NEW CAMPAIGNS
75% YES
% NO
USEFUL NUMBERS
MY COMPUTER

FIG. 2D

FIG. 3A


305
MICROSOFT INTERNET EXPLORER PROVIDED BY OPPENHEIMER WOLFF & DONNELLY LLP
FILE EDIT VIEW FAVORITES TOOLS HELP
BACK FORWARD STOP REFRESH HOME SEARCH FAVORITES HISTORY MAIL PRINT
ADDRESS C:\DATA\ACCENTCOMMUNICATIONS\1 LOGIN.HTML
WELCOME ANNE! TUESDAY, JULY 9, 2002
CALL TIMER: 0:00:00 TARGET T
HOME
ONLINE
SEARCH
IMPROVE MY PERFORMANCE
REVIEW LATEST TIPS/TRICKS
REVIEW NEW PRODUCT INFORMATION
COMPLIANCE UPDATES
DEALING WITH CUSTOMERS
CONTRIBUTE AN IDEA
PRODUCT/SERVICE
SOLUTION
MY PERSONAL STATUS
REWARD POINTS
KPI DETAIL
BONUS CALCULATOR
QUICK SEARCH
GO
PERSONAL KPIS
AVERAGE TALK TIME (SECONDS)
600
500
400
300
200
100
0
M T W T F
ANNE
AVERAGE
YOUR TALK TIME IS CURRENTL
HOWEVER YOU HAVE BEEN C
LENGTH OF CALL TIME, BUT W
HOW CAN I REDUCE MY TALK T
320
AVERAGE WRAP TIME (SECONDS)
600
500
400
300
200
100
0
M T W T F
ANNE
AVERAGE
310
YOUR WRAP TIME IS CURRENT
HOWEVER YOU HAVE IMPROVE
WEEK
REMEMBER, AS SOON AS YOU
325
HOW CAN I REDUCE MY WRAP

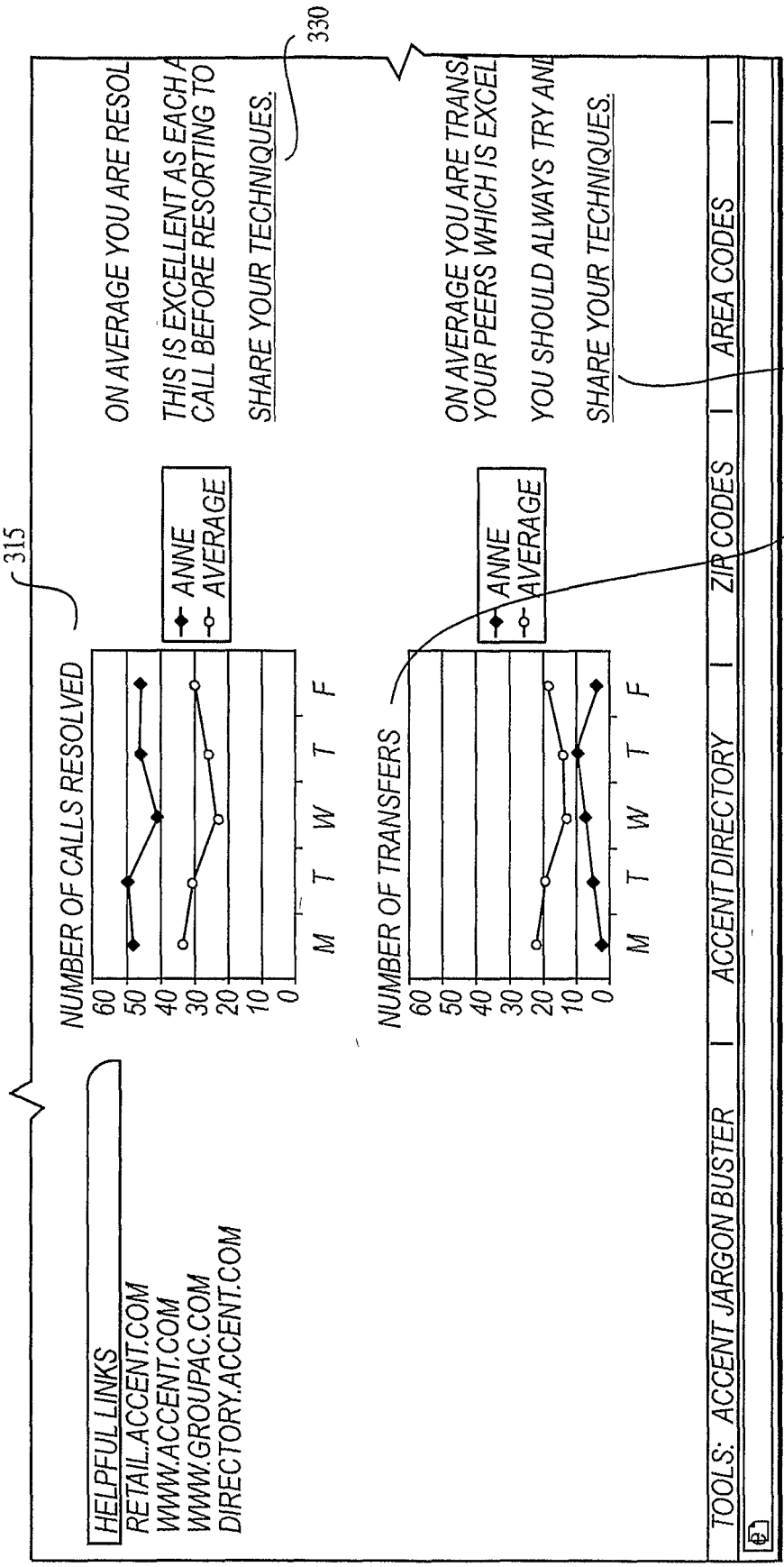


FIG. 3B

FIG. 3A	FIG. 3C
FIG. 3B	FIG. 3D

FIG. 3

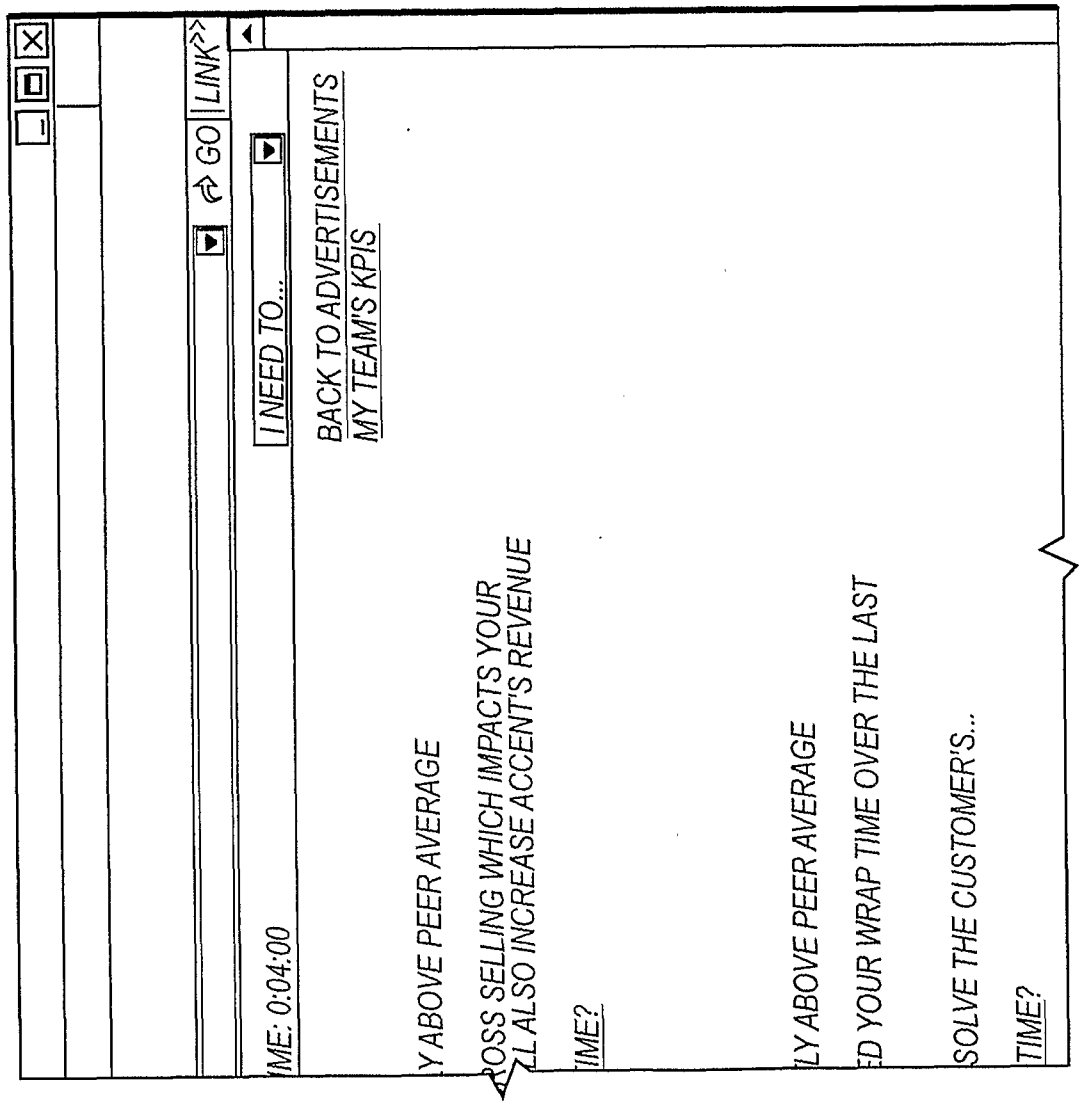

GO
LINK
I NEED TO...
ME: 0:04:00
BACK TO ADVERTISEMENTS
MY TEAM'S KPIS
Y ABOVE PEER AVERAGE
OSS SELLING WHICH IMPACTS YOUR
L ALSO INCREASE ACCENT'S REVENUE
IME?
LY ABOVE PEER AVERAGE
D YOUR WRAP TIME OVER THE LAST
SOLVE THE CUSTOMER'S...
TIME?

FIG. 3C

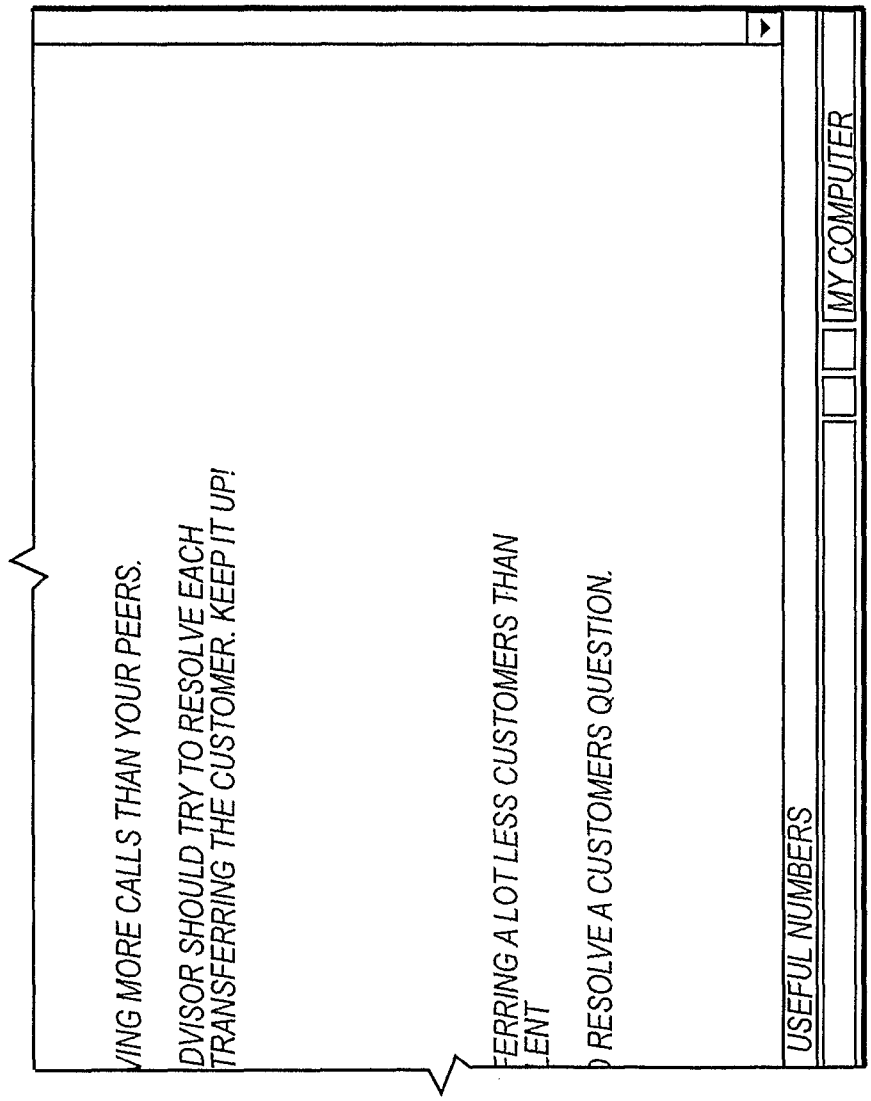

VING MORE CALLS THAN YOUR PEERS.
DVISOR SHOULD TRY TO RESOLVE EACH
TRANSFERRING THE CUSTOMER. KEEP IT UP!
FERRING A LOT LESS CUSTOMERS THAN
LENT
RESOLVE A CUSTOMERS QUESTION.
USEFUL NUMBERS
MY COMPUTER

FIG. 3D

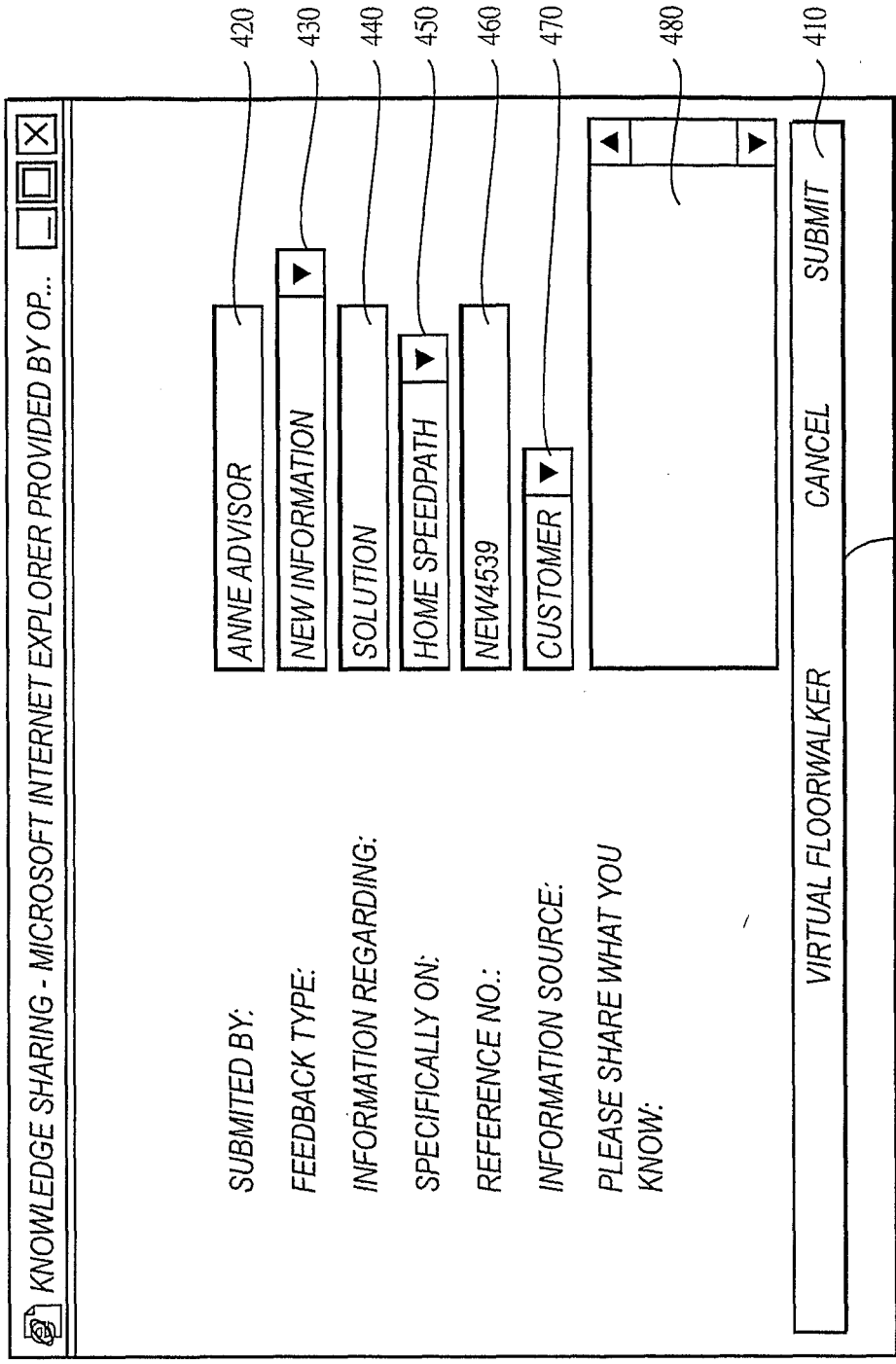

KNOWLEDGE SHARING - MICROSOFT INTERNET EXPLORER PROVIDED BY OP...
SUBMITED BY:
FEEDBACK TYPE:
INFORMATION REGARDING:
SPECIFICALLY ON:
REFERENCE NO.:
INFORMATION SOURCE:
PLEASE SHARE WHAT YOU KNOW:
ANNE ADVISOR
NEW INFORMATION
SOLUTION
HOME SPEEDPATH
NEW4539
CUSTOMER
VIRTUAL FLOORWALKER
CANCEL
SUBMIT
420
430
440
450
460
470
480
410
490

FIG. 4

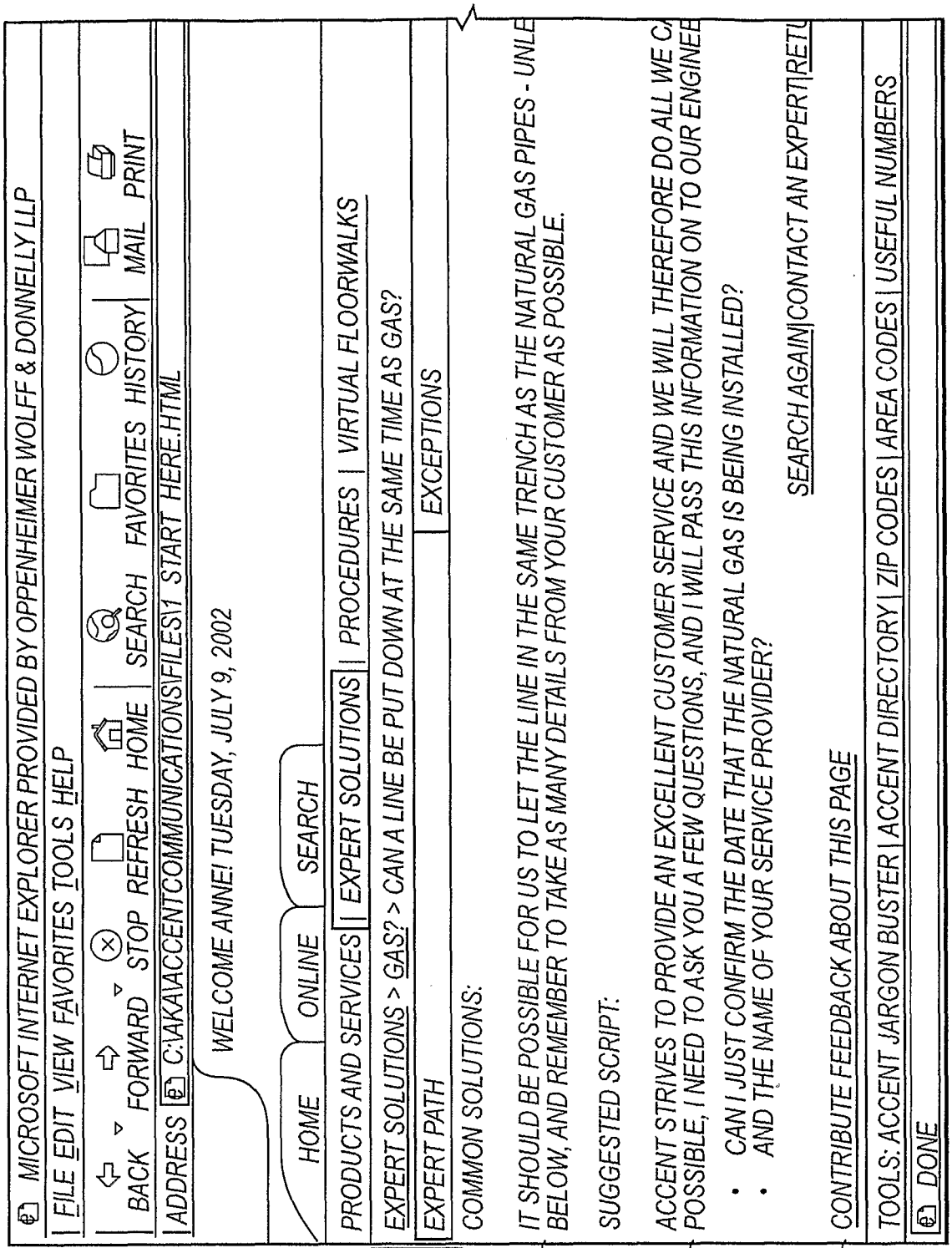


FIG. 5A

FIG. 5

FIG. 5A	FIG. 5B

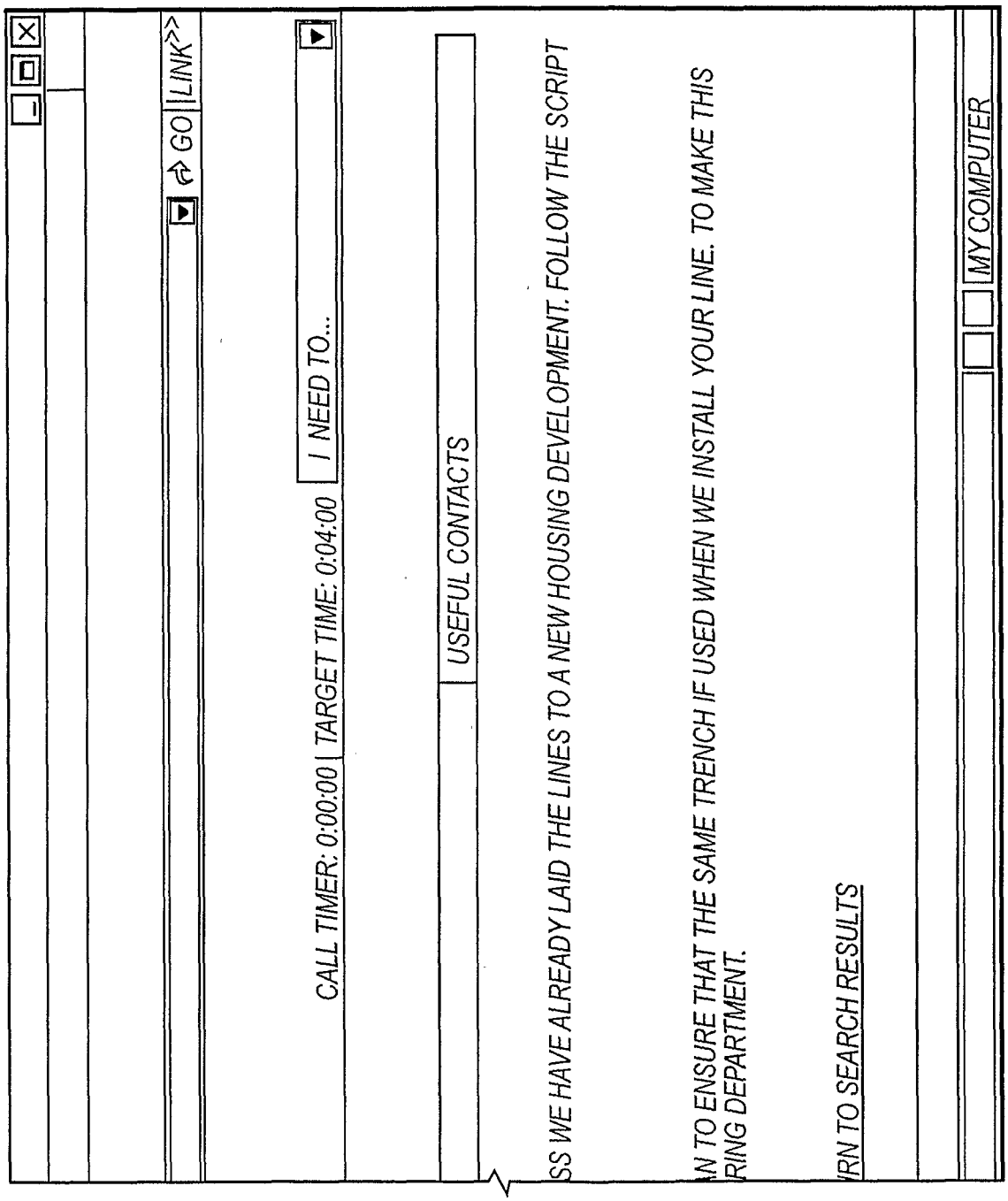

GO
LINK
CALL TIMER: 0:00:00
TARGET TIME: 0:04:00
I NEED TO...
USEFUL CONTACTS
SS WE HAVE ALREADY LAID THE LINES TO A NEW HOUSING DEVELOPMENT. FOLLOW THE SCRIPT
N TO ENSURE THAT THE SAME TRENCH IF USED WHEN WE INSTALL YOUR LINE. TO MAKE THIS
RING DEPARTMENT.
RN TO SEARCH RESULTS
MY COMPUTER

FIG. 5B

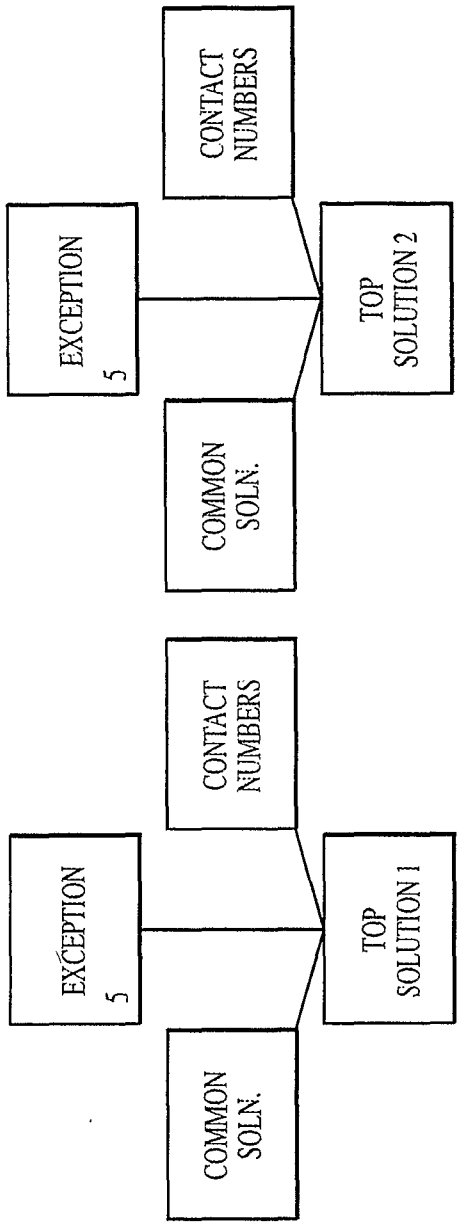
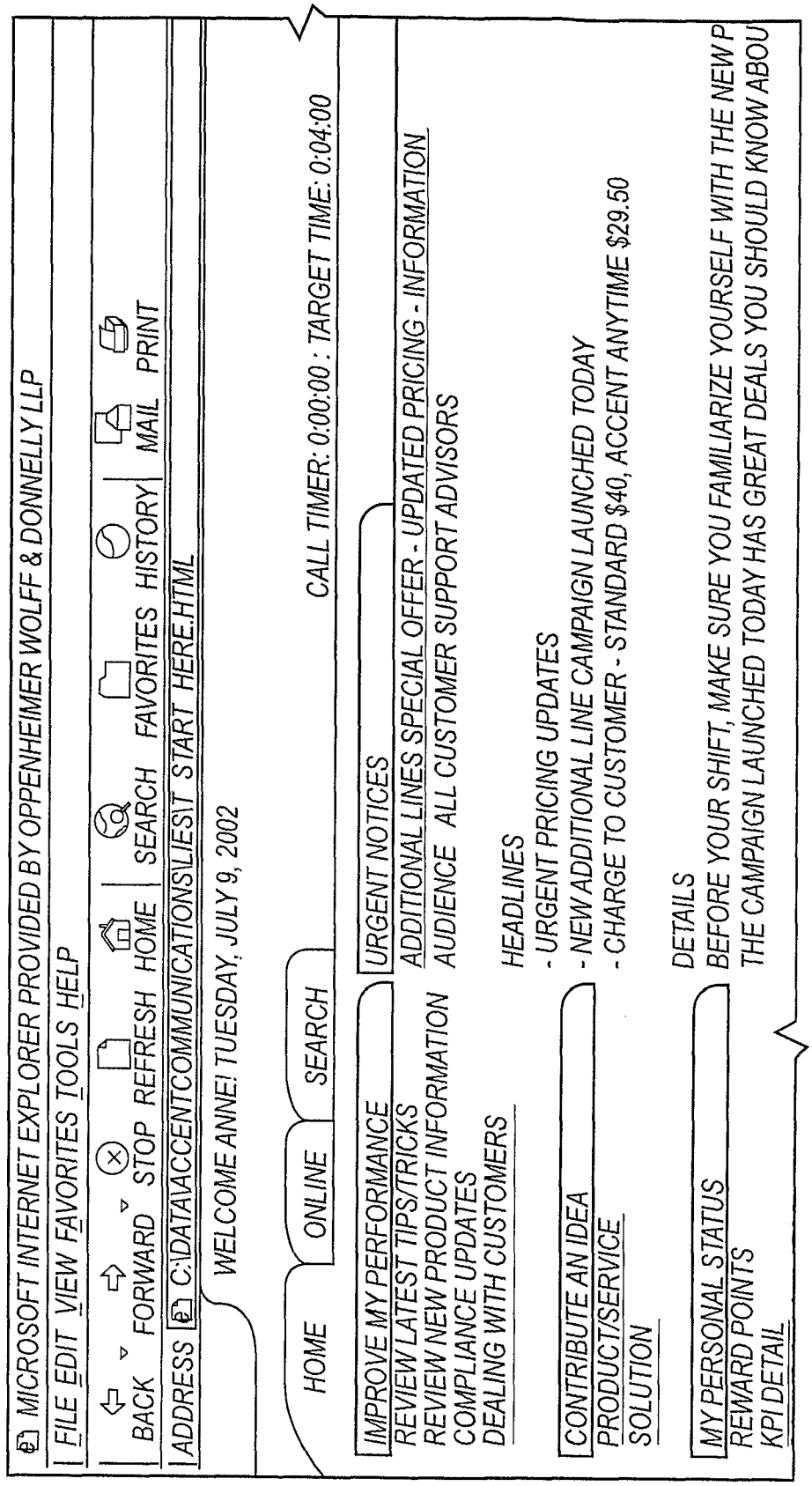

CONTACT NUMBERS
EXCEPTION 5
TOP SOLUTION 2
COMMON SOLN.
CONTACT NUMBERS
EXCEPTION 5
TOP SOLUTION 1
COMMON SOLN.

FIG. 6

FIG. 7A


MICROSOFT INTERNET EXPLORER PROVIDED BY OPPENHEIMER WOLFF & DONNELLY LLP
FILE EDIT VIEW FAVORITES TOOLS HELP
BACK FORWARD STOP REFRESH HOME SEARCH FAVORITES HISTORY MAIL PRINT
ADDRESS C:\DATA\ACCENTCOMMUNICATIONSLIES\T START HERE.HTML
WELCOME ANNE! TUESDAY, JULY 9, 2002
CALL TIMER: 0:00:00 : TARGET TIME: 0:04:00
HOME
ONLINE
SEARCH
IMPROVE MY PERFORMANCE
REVIEW LATEST TIPS/TRICKS
REVIEW NEW PRODUCT INFORMATION
COMPLIANCE UPDATES
DEALING WITH CUSTOMERS
CONTRIBUTE AN IDEA
PRODUCT/SERVICE
SOLUTION
MY PERSONAL STATUS
REWARD POINTS
KPI DETAIL
URGENT NOTICES
ADDITIONAL LINES SPECIAL OFFER - UPDATED PRICING - INFORMATION
AUDIENCE ALL CUSTOMER SUPPORT ADVISORS
HEADLINES
- URGENT PRICING UPDATES
- NEW ADDITIONAL LINE CAMPAIGN LAUNCHED TODAY
- CHARGE TO CUSTOMER - STANDARD $40, ACCENT ANYTIME $29.50
DETAILS
BEFORE YOUR SHIFT, MAKE SURE YOU FAMILIARIZE YOURSELF WITH THE NEW P
THE CAMPAIGN LAUNCHED TODAY HAS GREAT DEALS YOU SHOULD KNOW ABOU

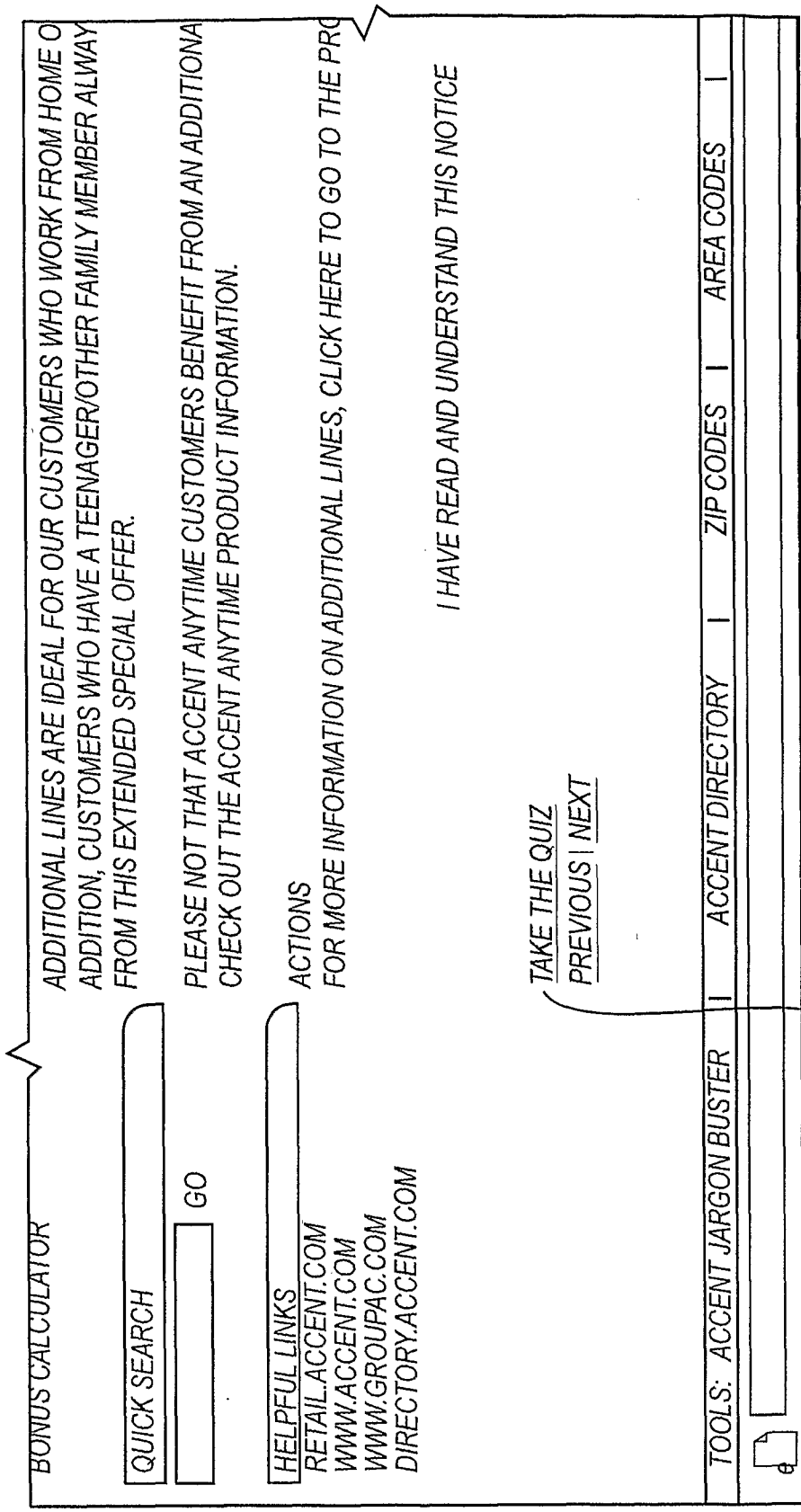
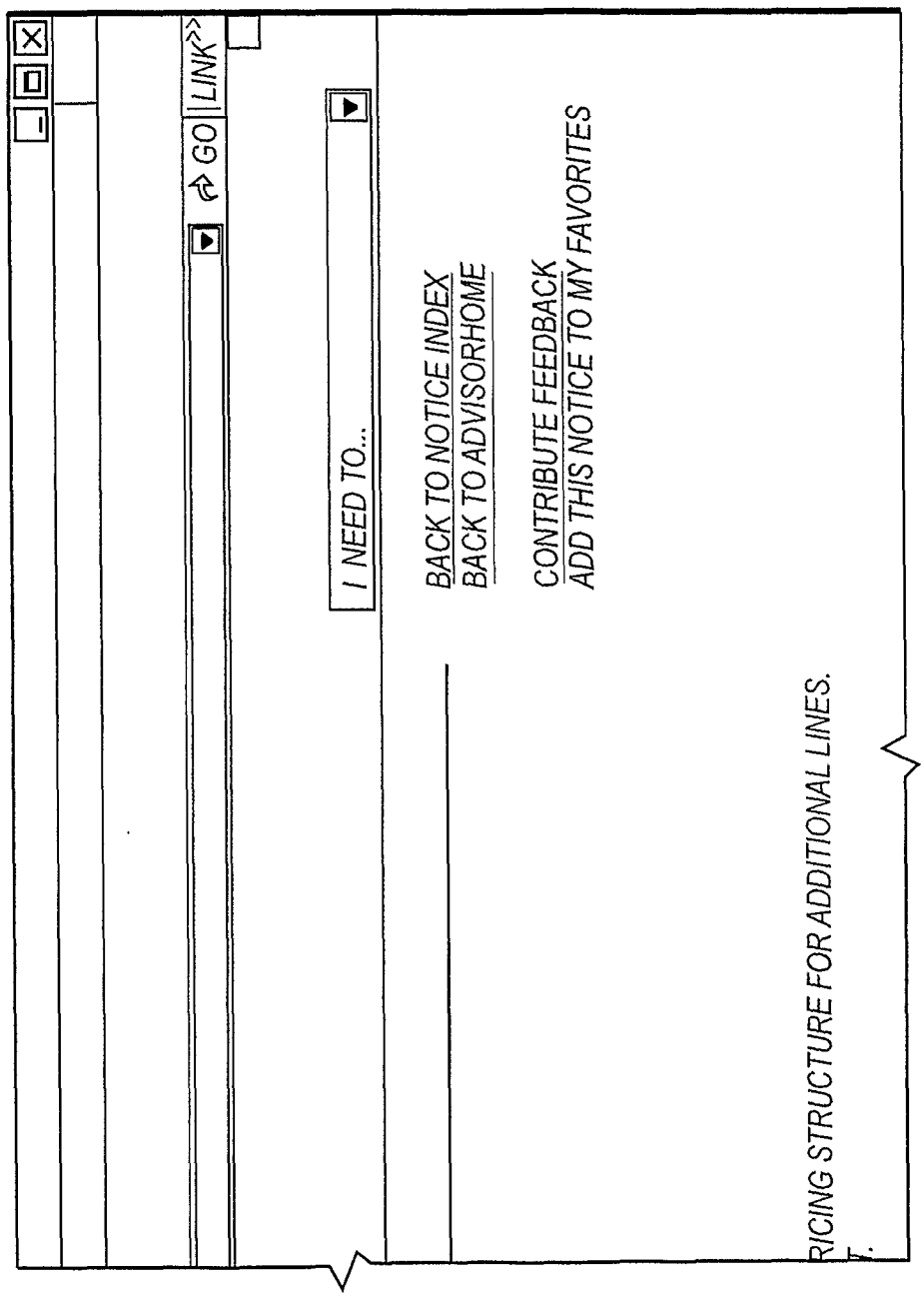


FIG. 7B

FIG. 7A	FIG. 7C
FIG. 7B	FIG. 7D

FIG. 7

FIG. 7C


GO
LINK>>
I NEED TO...
BACK TO NOTICE INDEX
BACK TO ADVISORHOME
CONTRIBUTE FEEDBACK
ADD THIS NOTICE TO MY FAVORITES
RICING STRUCTURE FOR ADDITIONAL LINES.

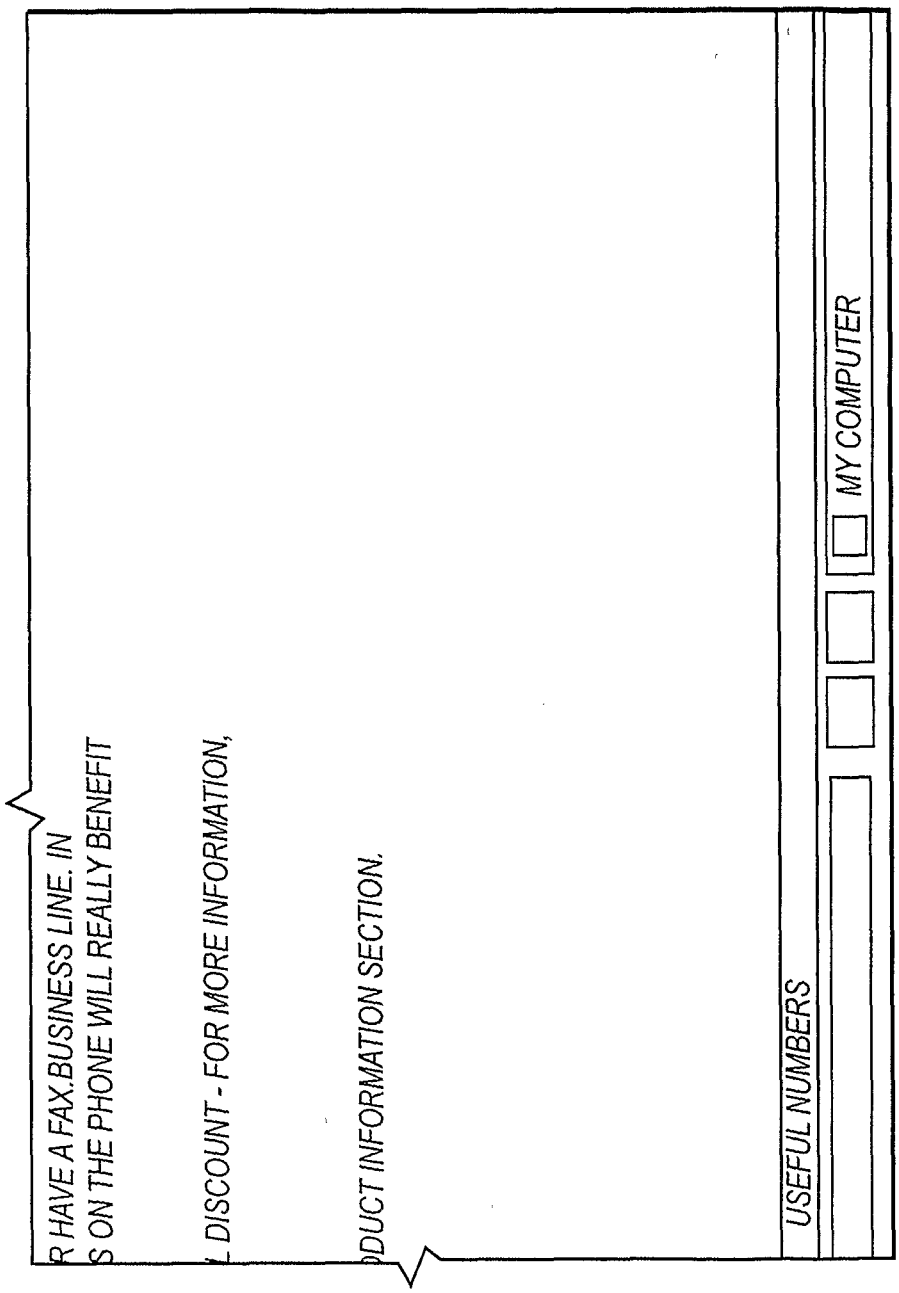

R HAVE A FAX.BUSINESS LINE. IN
S ON THE PHONE WILL REALLY BENEFIT
DISCOUNT - FOR MORE INFORMATION,
DUCT INFORMATION SECTION.
USEFUL NUMBERS
MY COMPUTER

FIG. 7D

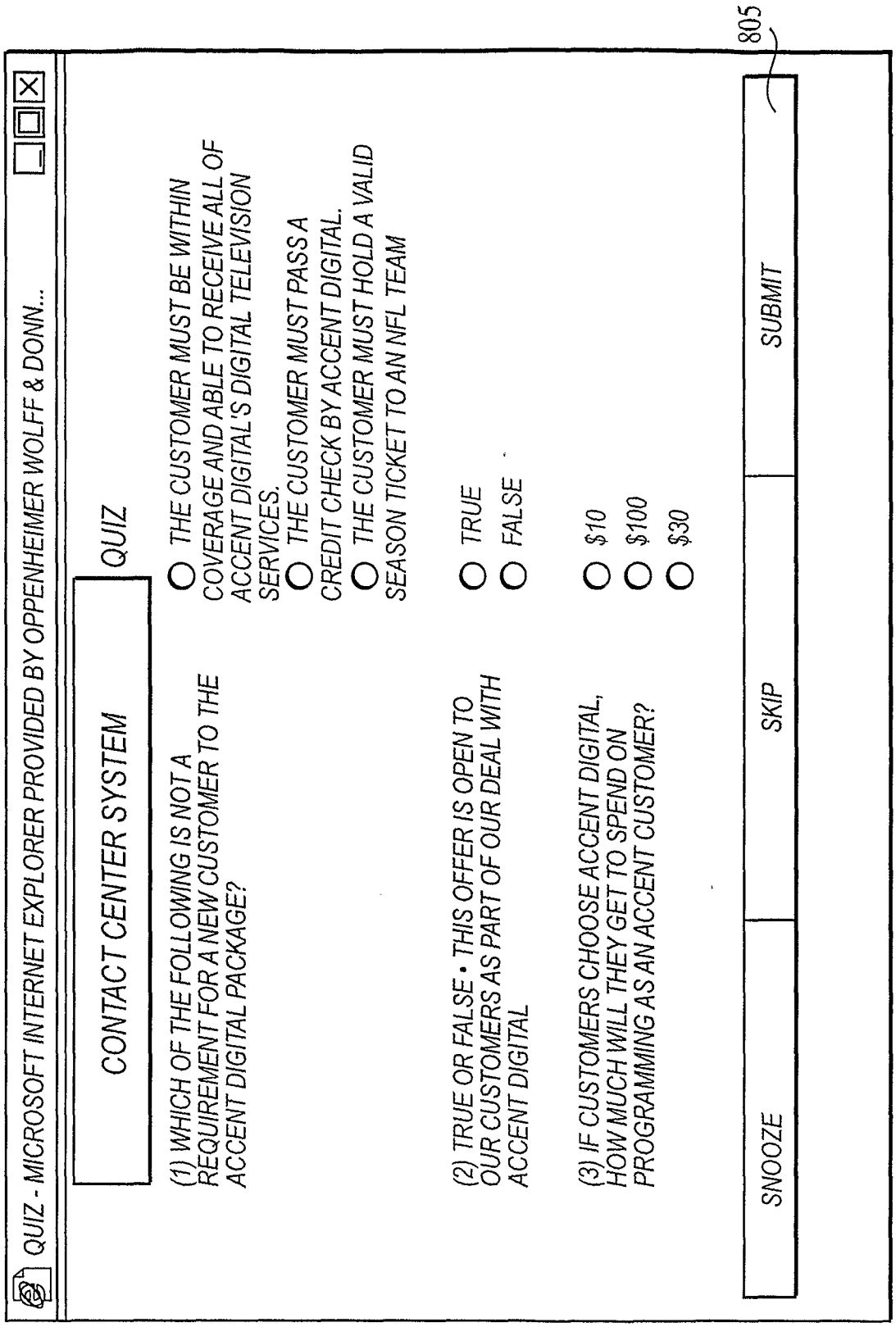

QUIZ - MICROSOFT INTERNET EXPLORER PROVIDED BY OPPENHEIMER WOLFF & DONN...
CONTACT CENTER SYSTEM
QUIZ
(1) WHICH OF THE FOLLOWING IS NOT A REQUIREMENT FOR A NEW CUSTOMER TO THE ACCENT DIGITAL PACKAGE?
THE CUSTOMER MUST BE WITHIN COVERAGE AND ABLE TO RECEIVE ALL OF ACCENT DIGITAL'S DIGITAL TELEVISION SERVICES.
THE CUSTOMER MUST PASS A CREDIT CHECK BY ACCENT DIGITAL.
THE CUSTOMER MUST HOLD A VALID SEASON TICKET TO AN NFL TEAM
(2) TRUE OR FALSE • THIS OFFER IS OPEN TO OUR CUSTOMERS AS PART OF OUR DEAL WITH ACCENT DIGITAL
TRUE
FALSE
(3) IF CUSTOMERS CHOOSE ACCENT DIGITAL, HOW MUCH WILL THEY GET TO SPEND ON PROGRAMMING AS AN ACCENT CUSTOMER?
$10
$100
$30
SNOOZE
SKIP
SUBMIT
805

FIG. 8

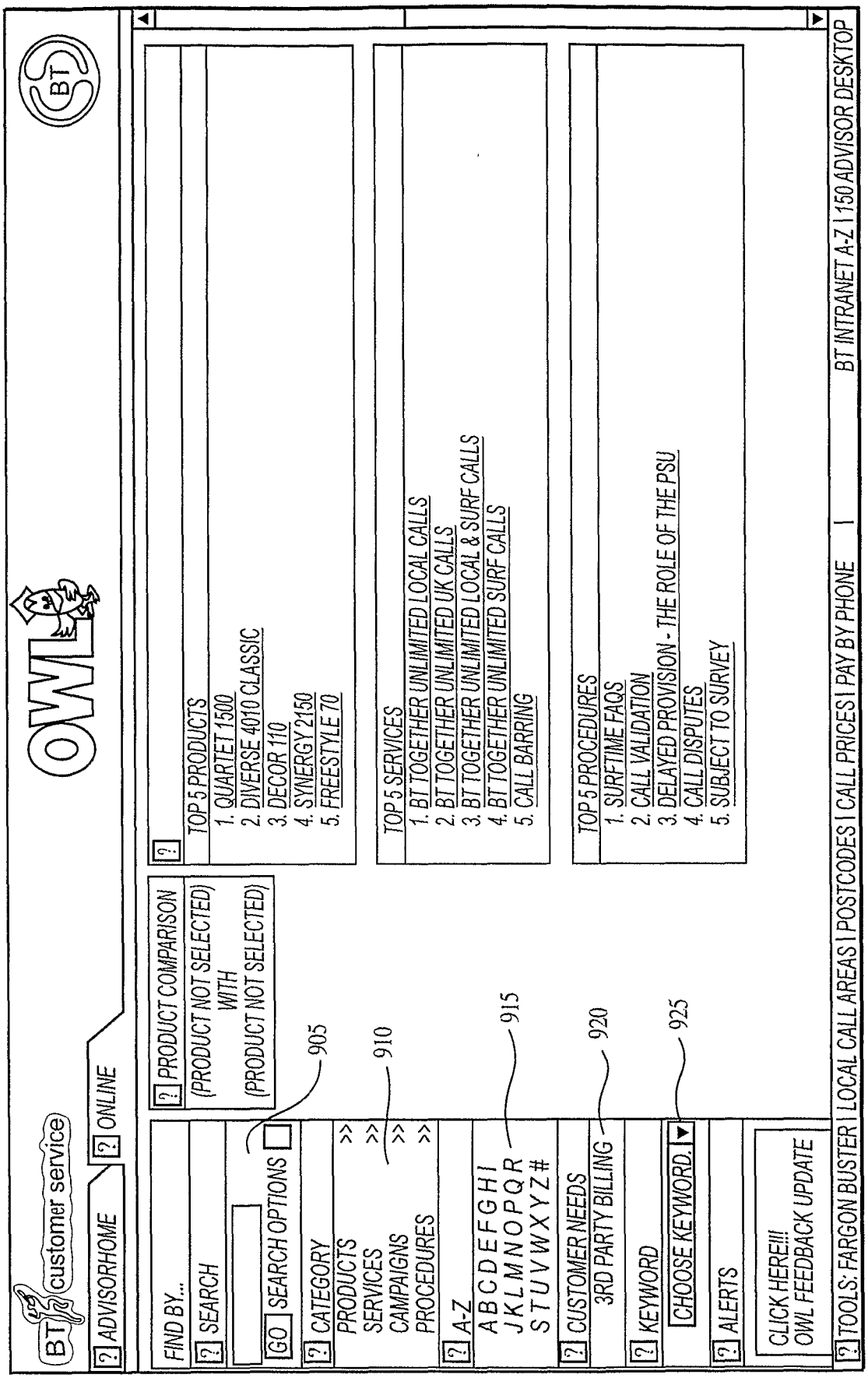

BT customer service
OWL
BT
ADVISORHOME
ONLINE
FIND BY...
SEARCH
GO
SEARCH OPTIONS
CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
CHOOSE KEYWORD.
ALERTS
CLICK HERE!!!
OWL FEEDBACK UPDATE
PRODUCT COMPARISON
(PRODUCT NOT SELECTED)
WITH
(PRODUCT NOT SELECTED)
TOP 5 PRODUCTS
1. QUARTET 1500
2. DIVERSE 4010 CLASSIC
3. DECOR 110
4. SYNERGY 2150
5. FREESTYLE 70
TOP 5 SERVICES
1. BT TOGETHER UNLIMITED LOCAL CALLS
2. BT TOGETHER UNLIMITED UK CALLS
3. BT TOGETHER UNLIMITED LOCAL & SURF CALLS
4. BT TOGETHER UNLIMITED SURF CALLS
5. CALL BARRING
TOP 5 PROCEDURES
1. SURFTIME FAQS
2. CALL VALIDATION
3. DELAYED PROVISION - THE ROLE OF THE PSU
4. CALL DISPUTES
5. SUBJECT TO SURVEY
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE | BT INTRANET A-Z | 150 ADVISOR DESKTOP
905
910
915
920
925

FIG. 9

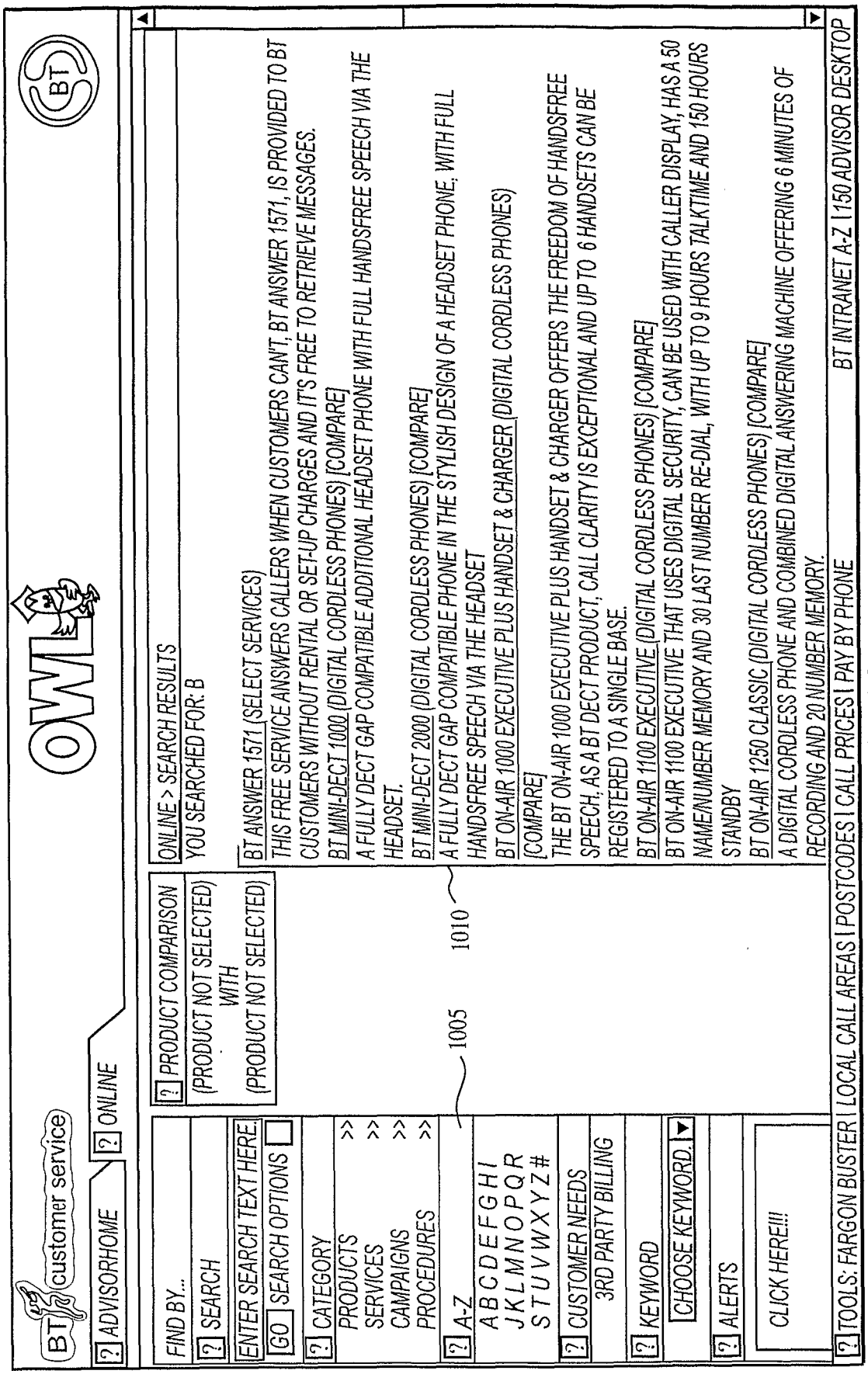

BT customer service
OWL
BT
? ADVISORHOME
? ONLINE
FIND BY...
? SEARCH
ENTER SEARCH TEXT HERE
GO SEARCH OPTIONS
? CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
? A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
? CUSTOMER NEEDS
3RD PARTY BILLING
? KEYWORD
CHOOSE KEYWORD.
? ALERTS
CLICK HERE!!!
? PRODUCT COMPARISON
(PRODUCT NOT SELECTED)
WITH
(PRODUCT NOT SELECTED)
ONLINE > SEARCH RESULTS
YOU SEARCHED FOR: B
BT ANSWER 1571 (SELECT SERVICES)
THIS FREE SERVICE ANSWERS CALLERS WHEN CUSTOMERS CAN'T, BT ANSWER 1571, IS PROVIDED TO BT CUSTOMERS WITHOUT RENTAL OR SET-UP CHARGES AND IT'S FREE TO RETRIEVE MESSAGES.
BT MINI-DECT 1000 (DIGITAL CORDLESS PHONES) [COMPARE]
A FULLY DECT GAP COMPATIBLE ADDITIONAL HEADSET PHONE WITH FULL HANDSFREE SPEECH VIA THE HEADSET.
BT MINI-DECT 2000 (DIGITAL CORDLESS PHONES) [COMPARE]
A FULLY DECT GAP COMPATIBLE PHONE IN THE STYLISH DESIGN OF A HEADSET PHONE, WITH FULL HANDSFREE SPEECH VIA THE HEADSET
BT ON-AIR 1000 EXECUTIVE PLUS HANDSET & CHARGER (DIGITAL CORDLESS PHONES) [COMPARE]
THE BT ON-AIR 1000 EXECUTIVE PLUS HANDSET & CHARGER OFFERS THE FREEDOM OF HANDSFREE SPEECH, AS A BT DECT PRODUCT, CALL CLARITY IS EXCEPTIONAL AND UP TO 6 HANDSETS CAN BE REGISTERED TO A SINGLE BASE.
BT ON-AIR 1100 EXECUTIVE (DIGITAL CORDLESS PHONES) [COMPARE]
BT ON-AIR 1100 EXECUTIVE THAT USES DIGITAL SECURITY, CAN BE USED WITH CALLER DISPLAY, HAS A 50 NAME/NUMBER MEMORY AND 30 LAST NUMBER RE-DIAL, WITH UP TO 9 HOURS TALKTIME AND 150 HOURS STANDBY
BT ON-AIR 1250 CLASSIC (DIGITAL CORDLESS PHONES) [COMPARE]
A DIGITAL CORDLESS PHONE AND COMBINED DIGITAL ANSWERING MACHINE OFFERING 6 MINUTES OF RECORDING AND 20 NUMBER MEMORY.
? TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP
1005
1010

FIG. 10

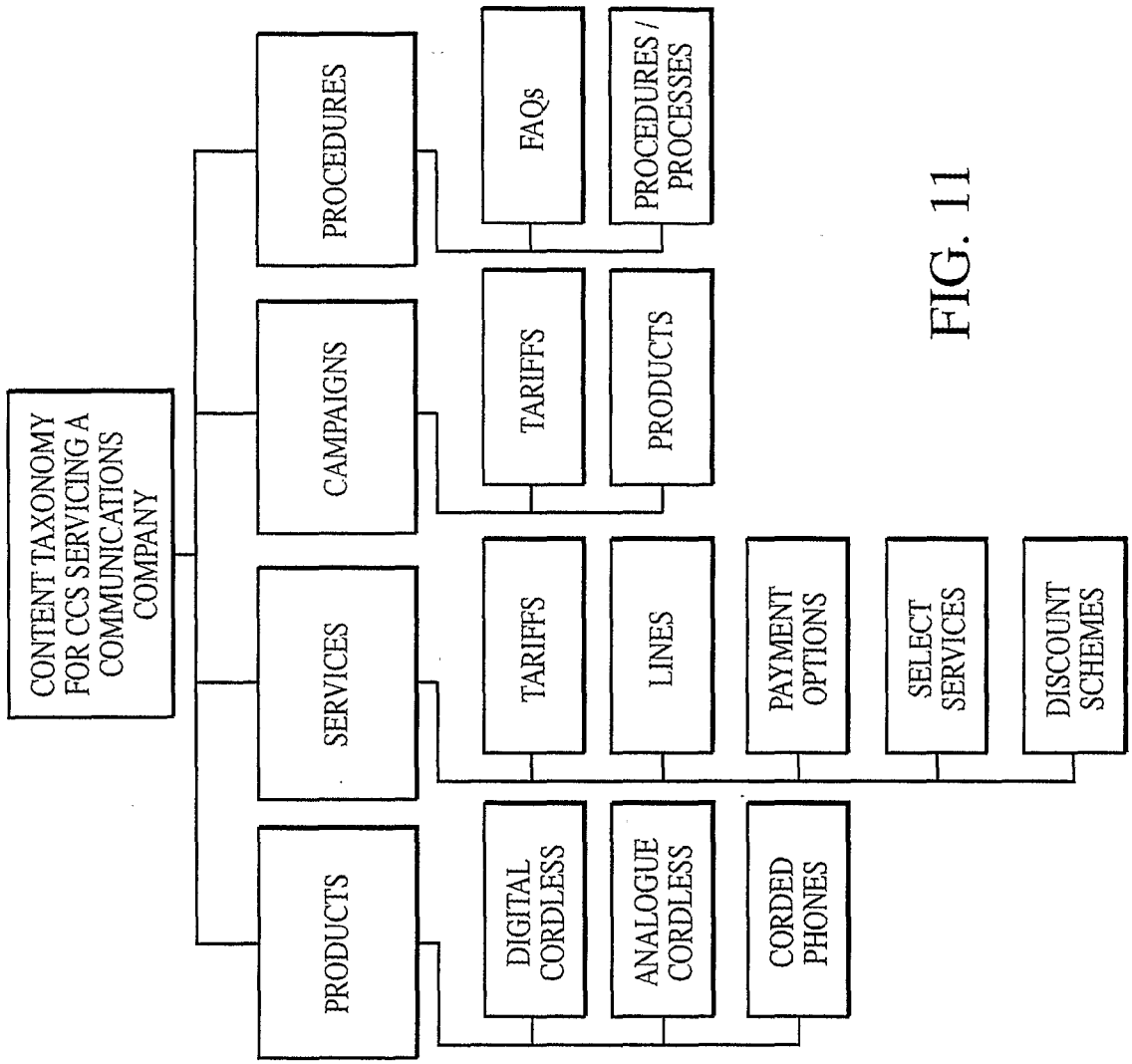

CONTENT TAXONOMY FOR CCS SERVICING A COMMUNICATIONS COMPANY
PROCEDURES
CAMPAIGNS
SERVICES
PRODUCTS
FAQs
PROCEDURES / PROCESSES
TARIFFS
PRODUCTS
TARIFFS
LINES
PAYMENT OPTIONS
SELECT SERVICES
DISCOUNT SCHEMES
DIGITAL CORDLESS
ANALOGUE CORDLESS
CORDED PHONES

FIG. 11

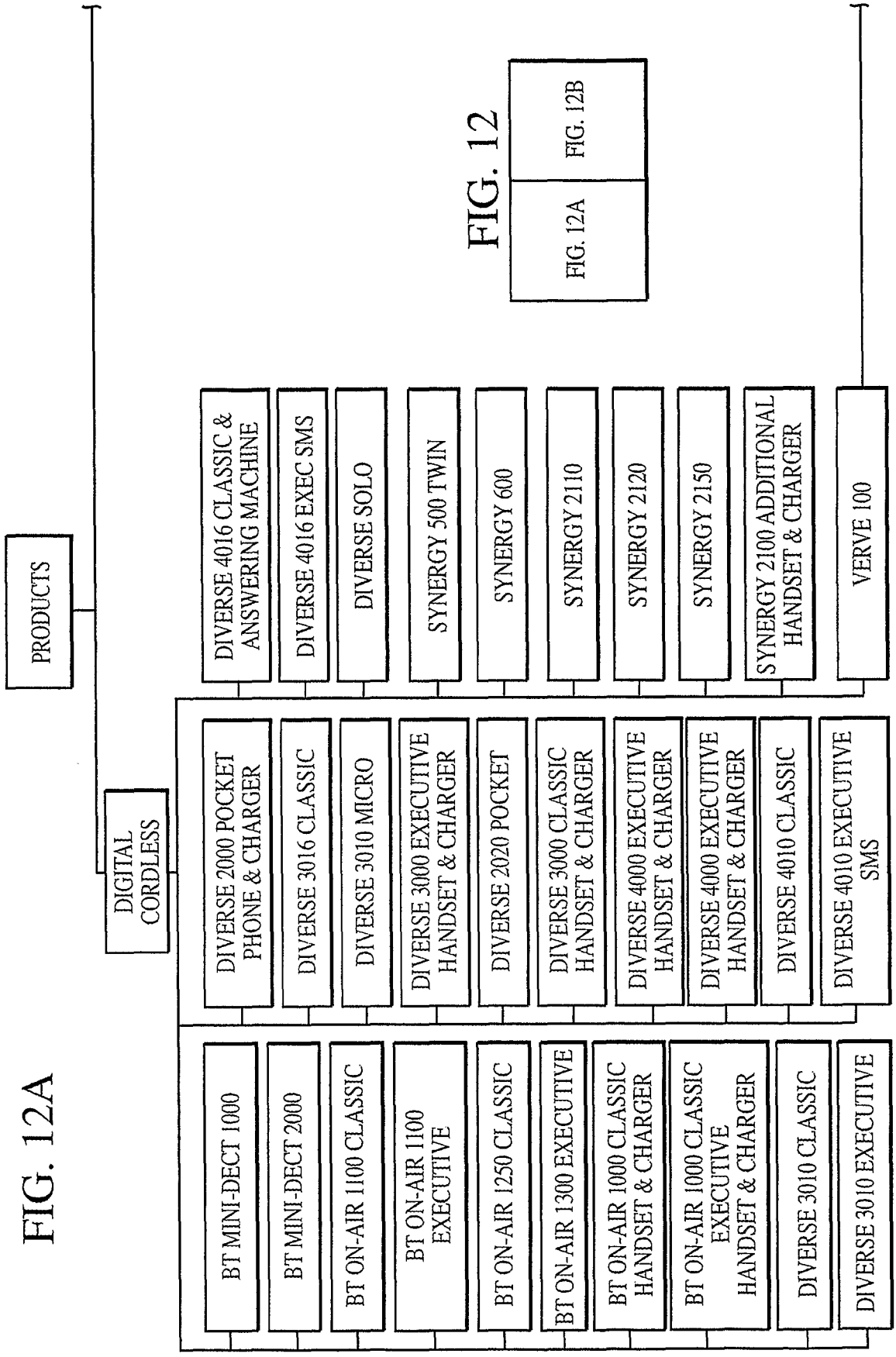


FIG. 12A

FIG. 12

FIG. 12A	FIG. 12B

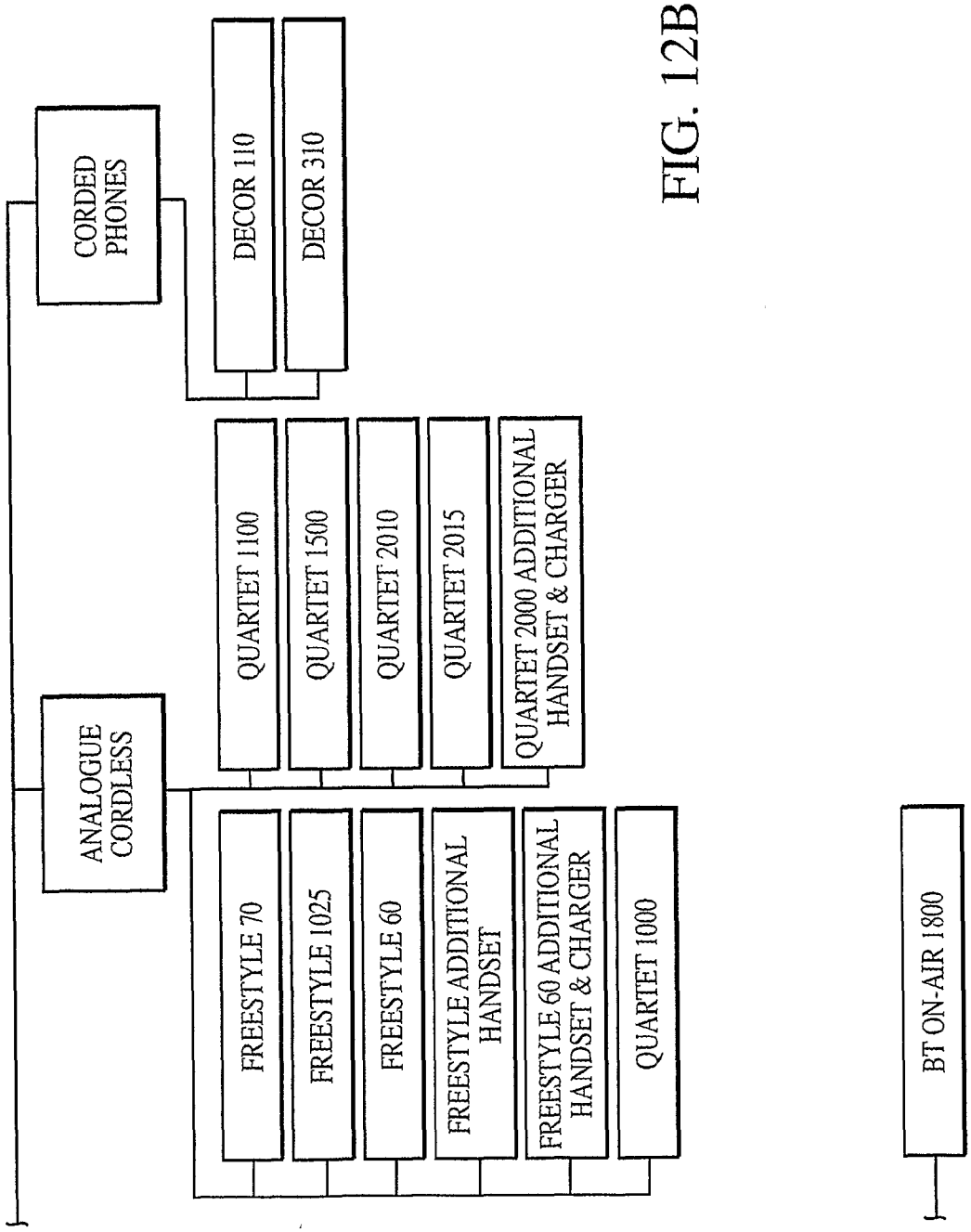

CORDED PHONES
DECOR 110
DECOR 310
ANALOGUE CORDLESS
QUARTET 1100
QUARTET 1500
QUARTET 2010
QUARTET 2015
QUARTET 2000 ADDITIONAL HANDSET & CHARGER
FREESTYLE 70
FREESTYLE 1025
FREESTYLE 60
FREESTYLE ADDITIONAL HANDSET
FREESTYLE 60 ADDITIONAL HANDSET & CHARGER
QUARTET 1000
BT ON-AIR 1800

FIG. 12B

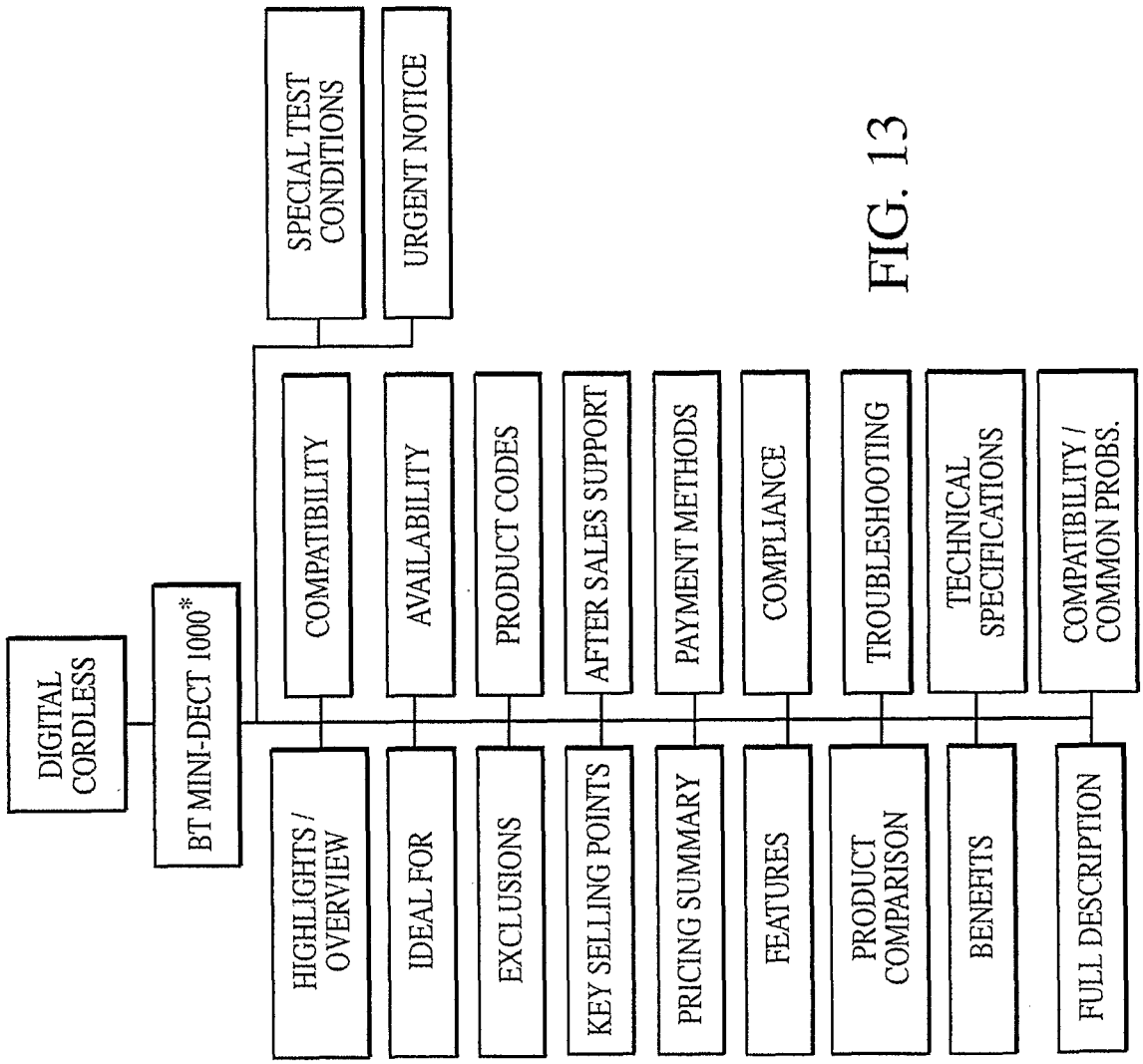

DIGITAL CORDLESS
BT MINI-DECT 1000*
HIGHLIGHTS / OVERVIEW
IDEAL FOR
EXCLUSIONS
KEY SELLING POINTS
PRICING SUMMARY
FEATURES
PRODUCT COMPARISON
BENEFITS
FULL DESCRIPTION
COMPATIBILITY
AVAILABILITY
PRODUCT CODES
AFTER SALES SUPPORT
PAYMENT METHODS
COMPLIANCE
TROUBLESHOOTING
TECHNICAL SPECIFICATIONS
COMPATIBILITY / COMMON PROBS.
SPECIAL TEST CONDITIONS
URGENT NOTICE

FIG. 13

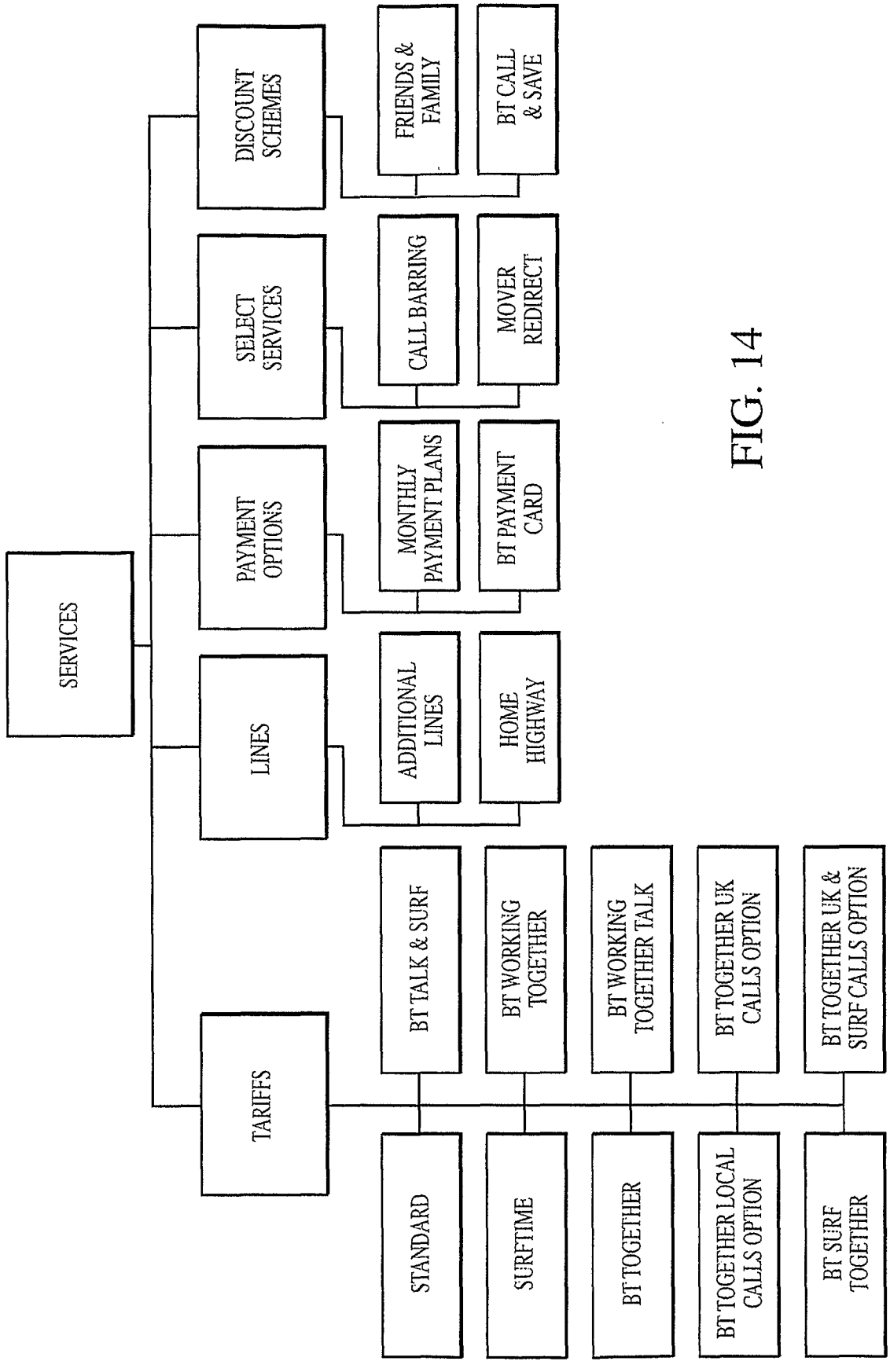

SERVICES
TARIFFS
LINES
PAYMENT OPTIONS
SELECT SERVICES
DISCOUNT SCHEMES
STANDARD
SURFTIME
BT TOGETHER
BT TOGETHER LOCAL CALLS OPTION
BT SURF TOGETHER
BT TALK & SURF
BT WORKING TOGETHER
BT WORKING TOGETHER TALK
BT TOGETHER UK CALLS OPTION
BT TOGETHER UK & SURF CALLS OPTION
ADDITIONAL LINES
HOME HIGHWAY
MONTHLY PAYMENT PLANS
BT PAYMENT CARD
CALL BARRING
MOVER REDIRECT
FRIENDS & FAMILY
BT CALL & SAVE

FIG. 14

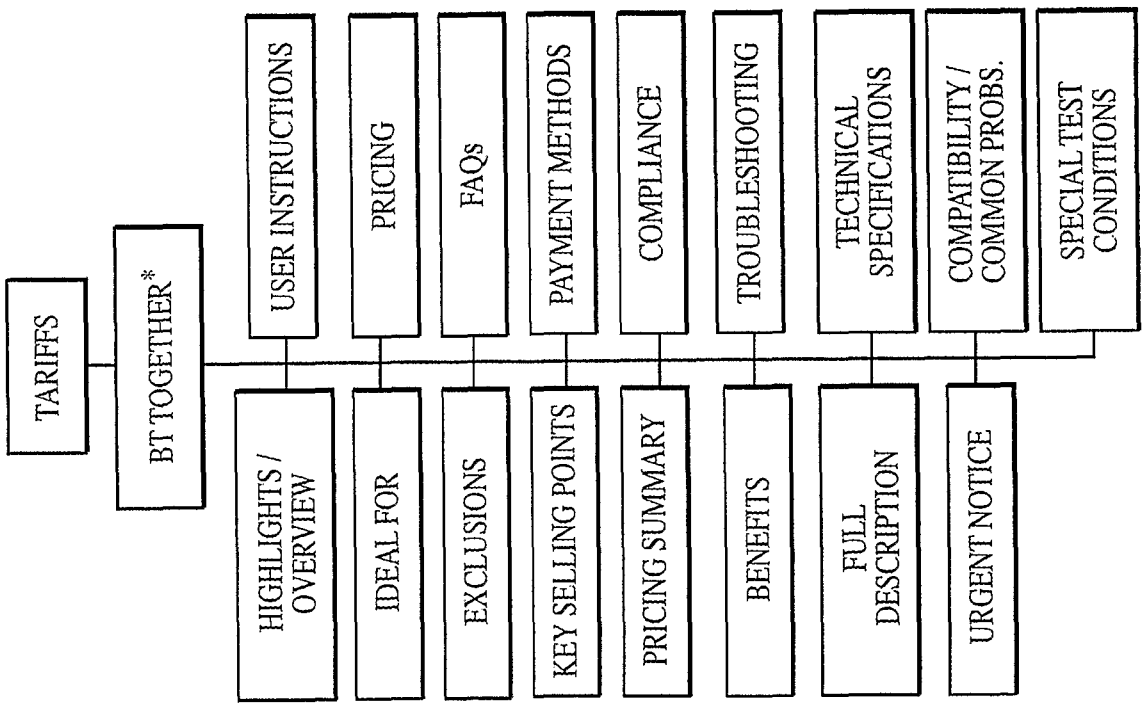

TARIFFS
BT TOGETHER*
USER INSTRUCTIONS
PRICING
FAQs
PAYMENT METHODS
COMPLIANCE
TROUBLESHOOTING
TECHNICAL SPECIFICATIONS
COMPATIBILITY / COMMON PROBS.
SPECIAL TEST CONDITIONS
HIGHLIGHTS / OVERVIEW
IDEAL FOR
EXCLUSIONS
KEY SELLING POINTS
PRICING SUMMARY
BENEFITS
FULL DESCRIPTION
URGENT NOTICE

FIG. 15

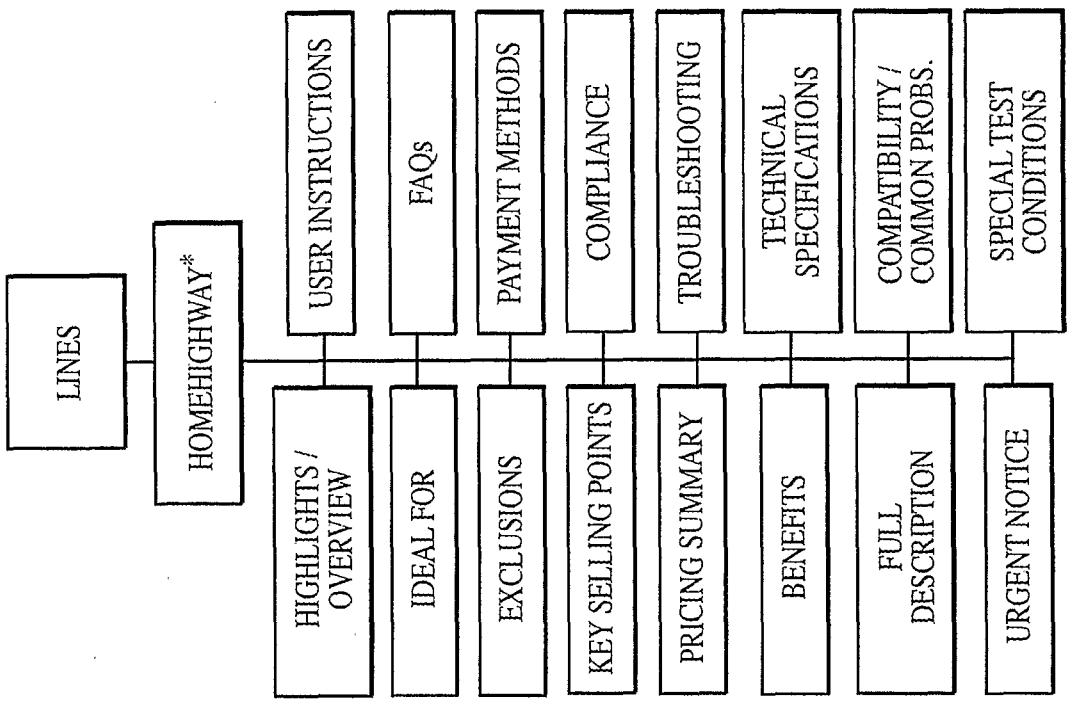

LINES
HOMEHIGHWAY*
USER INSTRUCTIONS
FAQs
PAYMENT METHODS
COMPLIANCE
TROUBLESHOOTING
TECHNICAL SPECIFICATIONS
COMPATIBILITY / COMMON PROBS.
SPECIAL TEST CONDITIONS
HIGHLIGHTS / OVERVIEW
IDEAL FOR
EXCLUSIONS
KEY SELLING POINTS
PRICING SUMMARY
BENEFITS
FULL DESCRIPTION
URGENT NOTICE

FIG. 16

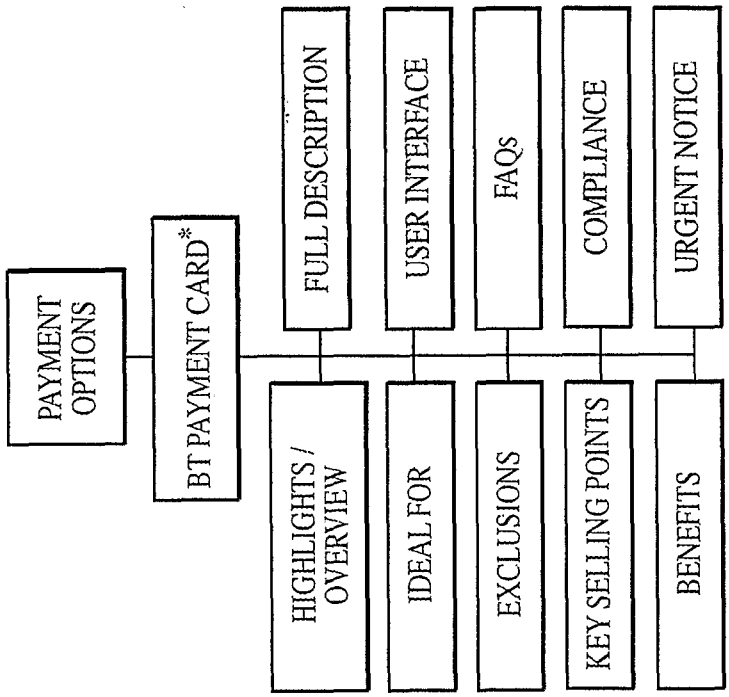

PAYMENT OPTIONS
BT PAYMENT CARD*
HIGHLIGHTS / OVERVIEW
IDEAL FOR
EXCLUSIONS
KEY SELLING POINTS
BENEFITS
FULL DESCRIPTION
USER INTERFACE
FAQs
COMPLIANCE
URGENT NOTICE

FIG. 17

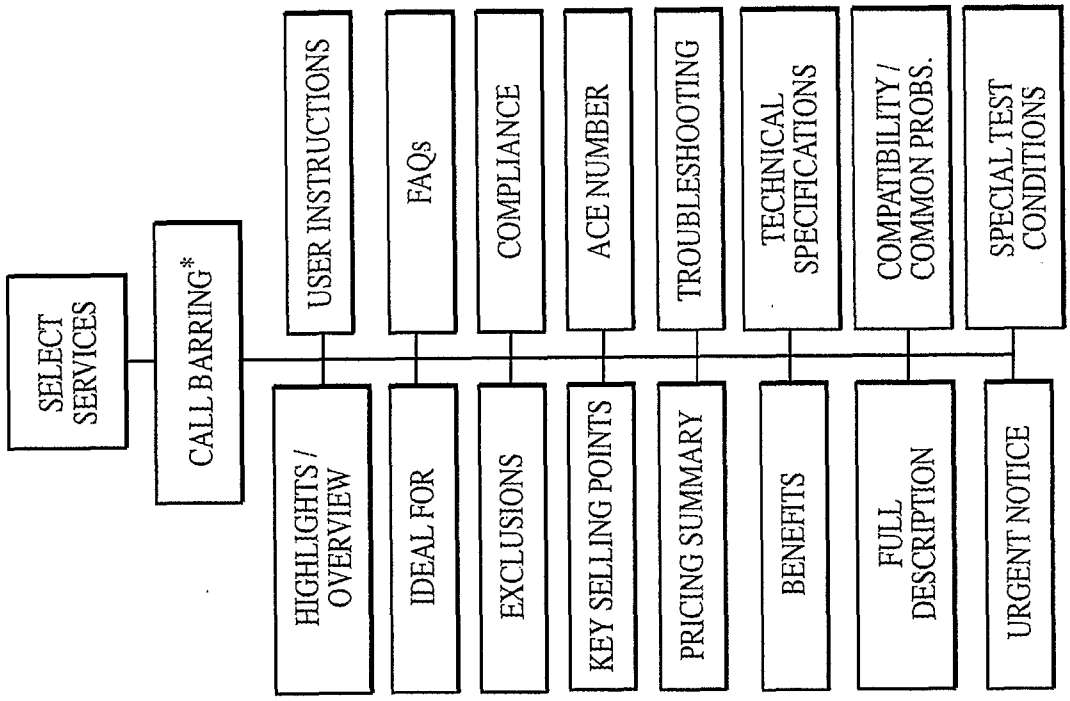

SELECT SERVICES
CALL BARRING*
USER INSTRUCTIONS
FAQs
COMPLIANCE
ACE NUMBER
TROUBLESHOOTING
TECHNICAL SPECIFICATIONS
COMPATIBILITY / COMMON PROBS.
SPECIAL TEST CONDITIONS
HIGHLIGHTS / OVERVIEW
IDEAL FOR
EXCLUSIONS
KEY SELLING POINTS
PRICING SUMMARY
BENEFITS
FULL DESCRIPTION
URGENT NOTICE

FIG. 18

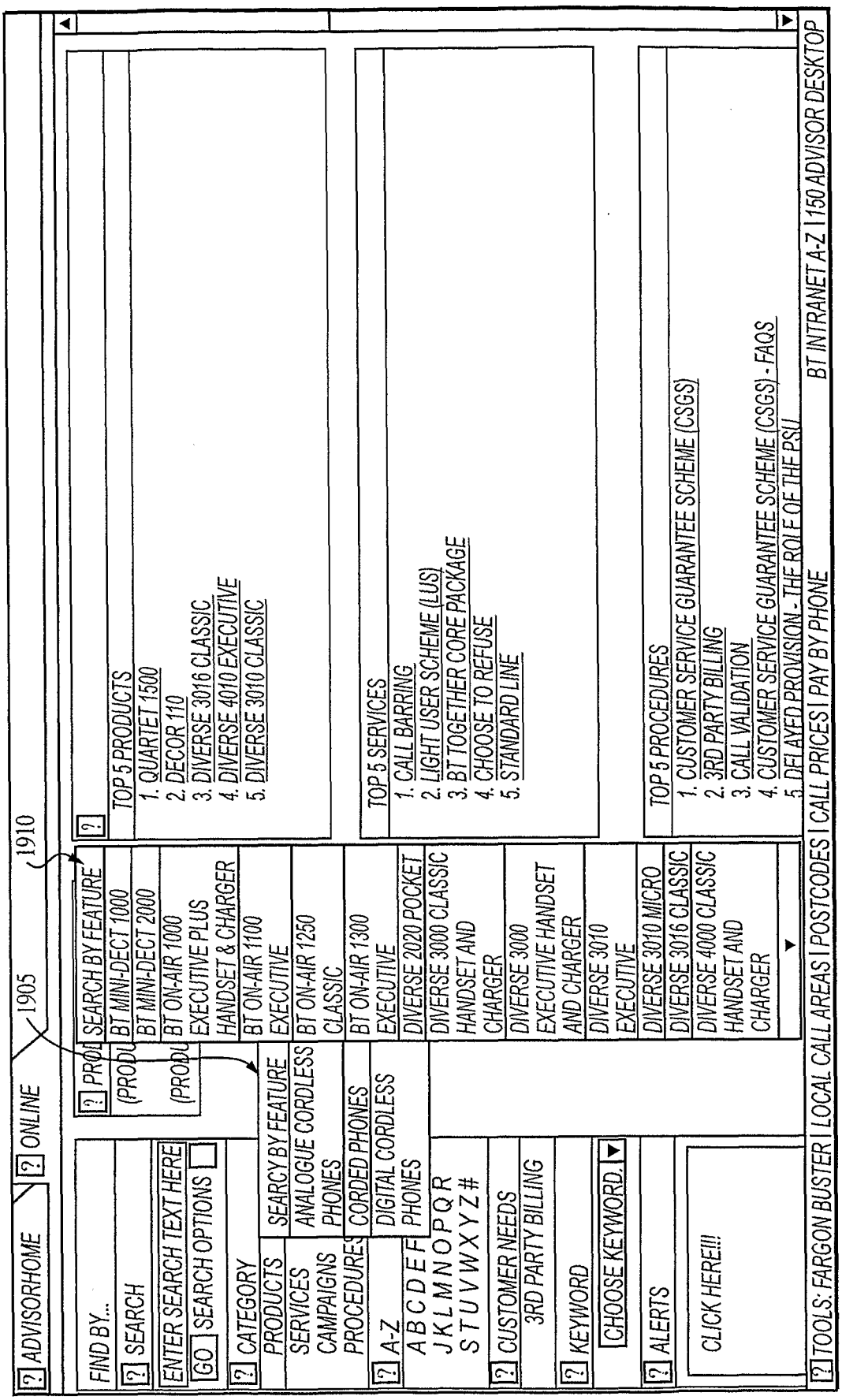

ADVISORHOME
ONLINE
1905
1910
FIND BY...
SEARCH
ENTER SEARCH TEXT HERE
GO
SEARCH OPTIONS
CATEGORY
PRODUCTS
SERVICES
CAMPAIGNS
PROCEDURES
A-Z
A B C D E F
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
CHOOSE KEYWORD.
ALERTS
CLICK HERE!!!
SEARCH BY FEATURE
BT MINI-DECT 1000
BT MINI-DECT 2000
BT ON-AIR 1000
EXECUTIVE PLUS
HANDSET & CHARGER
BT ON-AIR 1100
EXECUTIVE
BT ON-AIR 1250
CLASSIC
BT ON-AIR 1300
EXECUTIVE
DIVERSE 2020 POCKET
DIVERSE 3000 CLASSIC
HANDSET AND
CHARGER
DIVERSE 3000
EXECUTIVE HANDSET
AND CHARGER
DIVERSE 3010
EXECUTIVE
DIVERSE 3010 MICRO
DIVERSE 3016 CLASSIC
DIVERSE 4000 CLASSIC
HANDSET AND
CHARGER
SEARCY BY FEATURE
ANALOGUE CORDLESS
PHONES
CORDED PHONES
DIGITAL CORDLESS
PHONES
TOP 5 PRODUCTS
1. QUARTET 1500
2. DECOR 110
3. DIVERSE 3016 CLASSIC
4. DIVERSE 4010 EXECUTIVE
5. DIVERSE 3010 CLASSIC
TOP 5 SERVICES
1. CALL BARRING
2. LIGHT USER SCHEME (LUS)
3. BT TOGETHER CORE PACKAGE
4. CHOOSE TO REFUSE
5. STANDARD LINE
TOP 5 PROCEDURES
1. CUSTOMER SERVICE GUARANTEE SCHEME (CSGS)
2. 3RD PARTY BILLING
3. CALL VALIDATION
4. CUSTOMER SERVICE GUARANTEE SCHEME (CSGS) - FAQS
5. DELAYED PROVISION - THE ROLE OF THE PSU
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP

FIG. 19

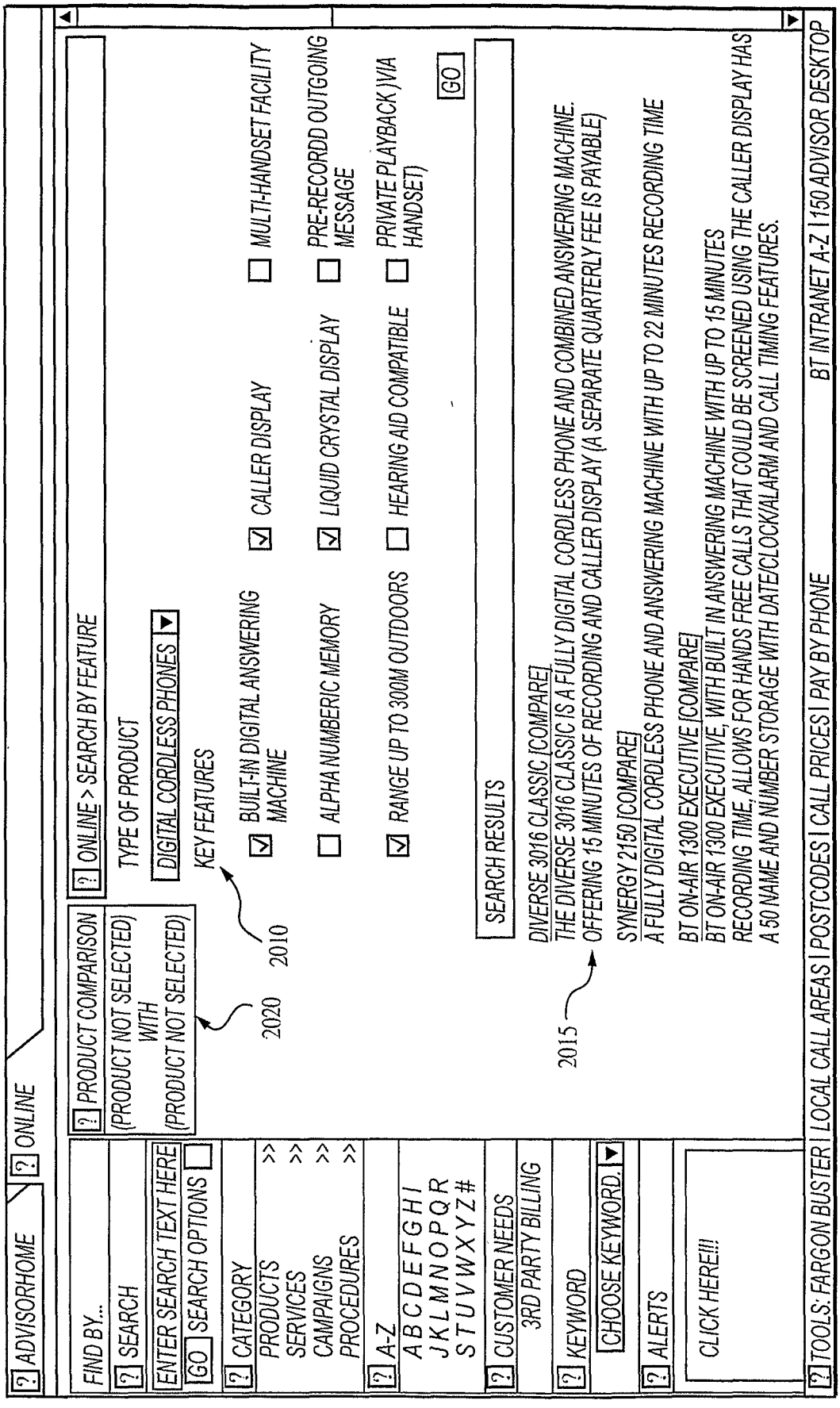

ADVISORHOME
ONLINE
FIND BY...
SEARCH
ENTER SEARCH TEXT HERE
GO SEARCH OPTIONS
CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
CHOOSE KEYWORD.
ALERTS
CLICK HERE!!!
PRODUCT COMPARISON
(PRODUCT NOT SELECTED)
WITH
(PRODUCT NOT SELECTED)
ONLINE > SEARCH BY FEATURE
TYPE OF PRODUCT
DIGITAL CORDLESS PHONES
KEY FEATURES
BUILT-IN DIGITAL ANSWERING MACHINE
ALPHA NUMBERIC MEMORY
RANGE UP TO 300M OUTDOORS
CALLER DISPLAY
LIQUID CRYSTAL DISPLAY
HEARING AID COMPATIBLE
MULTI-HANDSET FACILITY
PRE-RECORDD OUTGOING MESSAGE
PRIVATE PLAYBACK)VIA HANDSET)
GO
SEARCH RESULTS
DIVERSE 3016 CLASSIC [COMPARE]
THE DIVERSE 3016 CLASSIC IS A FULLY DIGITAL CORDLESS PHONE AND COMBINED ANSWERING MACHINE. OFFERING 15 MINUTES OF RECORDING AND CALLER DISPLAY (A SEPARATE QUARTERLY FEE IS PAYABLE)
SYNERGY 2150 [COMPARE]
A FULLY DIGITAL CORDLESS PHONE AND ANSWERING MACHINE WITH UP TO 22 MINUTES RECORDING TIME
BT ON-AIR 1300 EXECUTIVE [COMPARE]
BT ON-AIR 1300 EXECUTIVE, WITH BUILT IN ANSWERING MACHINE WITH UP TO 15 MINUTES RECORDING TIME, ALLOWS FOR HANDS FREE CALLS THAT COULD BE SCREENED USING THE CALLER DISPLAY HAS A 50 NAME AND NUMBER STORAGE WITH DATE/CLOCK/ALARM AND CALL TIMING FEATURES.
2010
2020
2015
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP

FIG. 20

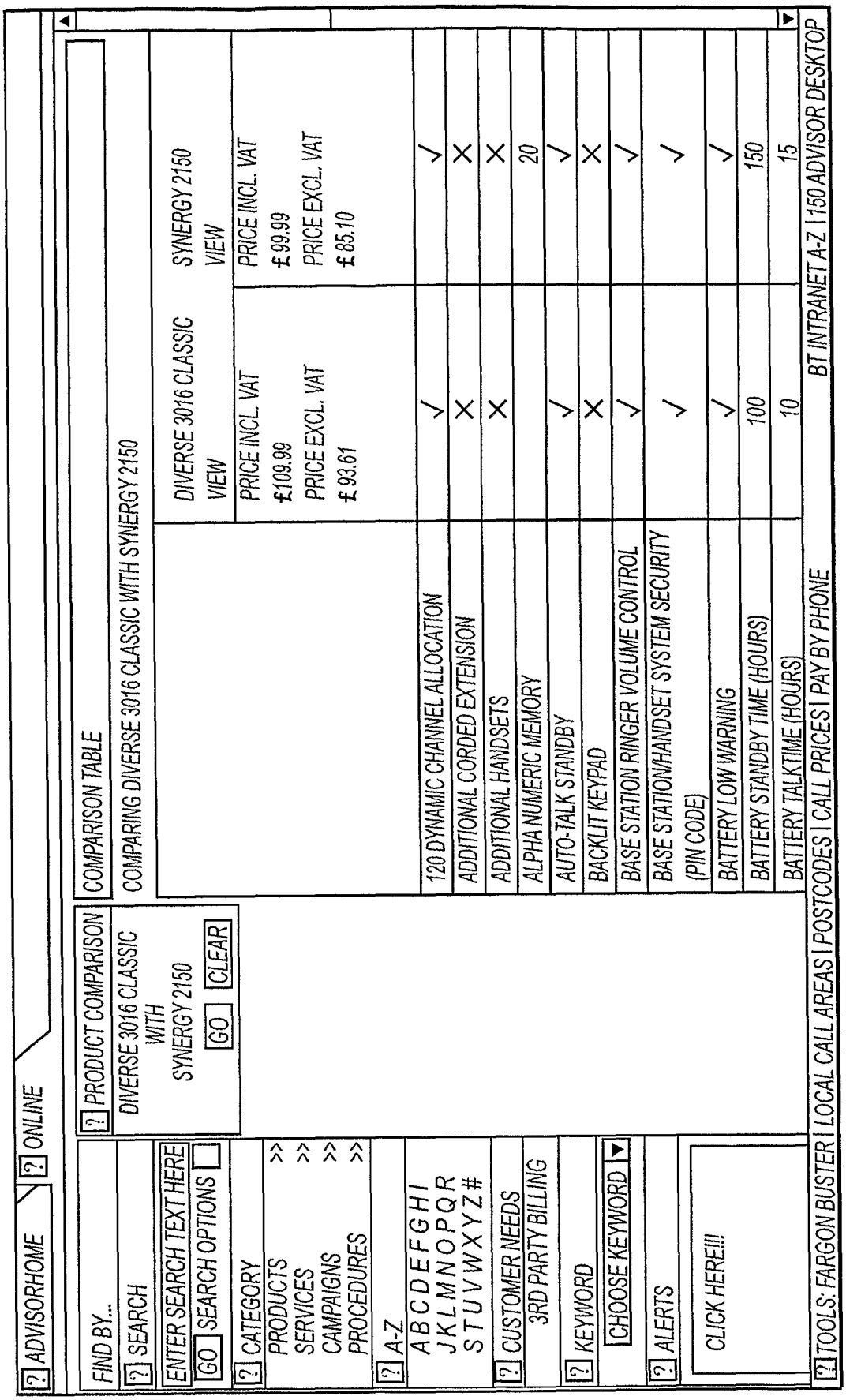

ADVISORHOME
ONLINE
FIND BY...
SEARCH
ENTER SEARCH TEXT HERE
GO
SEARCH OPTIONS
CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
CHOOSE KEYWORD
ALERTS
CLICK HERE!!!
PRODUCT COMPARISON
DIVERSE 3016 CLASSIC WITH SYNERGY 2150
GO
CLEAR
COMPARISON TABLE
COMPARING DIVERSE 3016 CLASSIC WITH SYNERGY 2150
DIVERSE 3016 CLASSIC VIEW
SYNERGY 2150 VIEW
PRICE INCL. VAT £109.99
PRICE EXCL. VAT £93.61
PRICE INCL. VAT £99.99
PRICE EXCL. VAT £85.10
120 DYNAMIC CHANNEL ALLOCATION
ADDITIONAL CORDED EXTENSION
ADDITIONAL HANDSETS
ALPHA NUMERIC MEMORY
AUTO-TALK STANDBY
BACKLIT KEYPAD
BASE STATION RINGER VOLUME CONTROL
BASE STATION/HANDSET SYSTEM SECURITY (PIN CODE)
BATTERY LOW WARNING
BATTERY STANDBY TIME (HOURS)
BATTERY TALKTIME (HOURS)
20
150
15
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP

FIG. 21

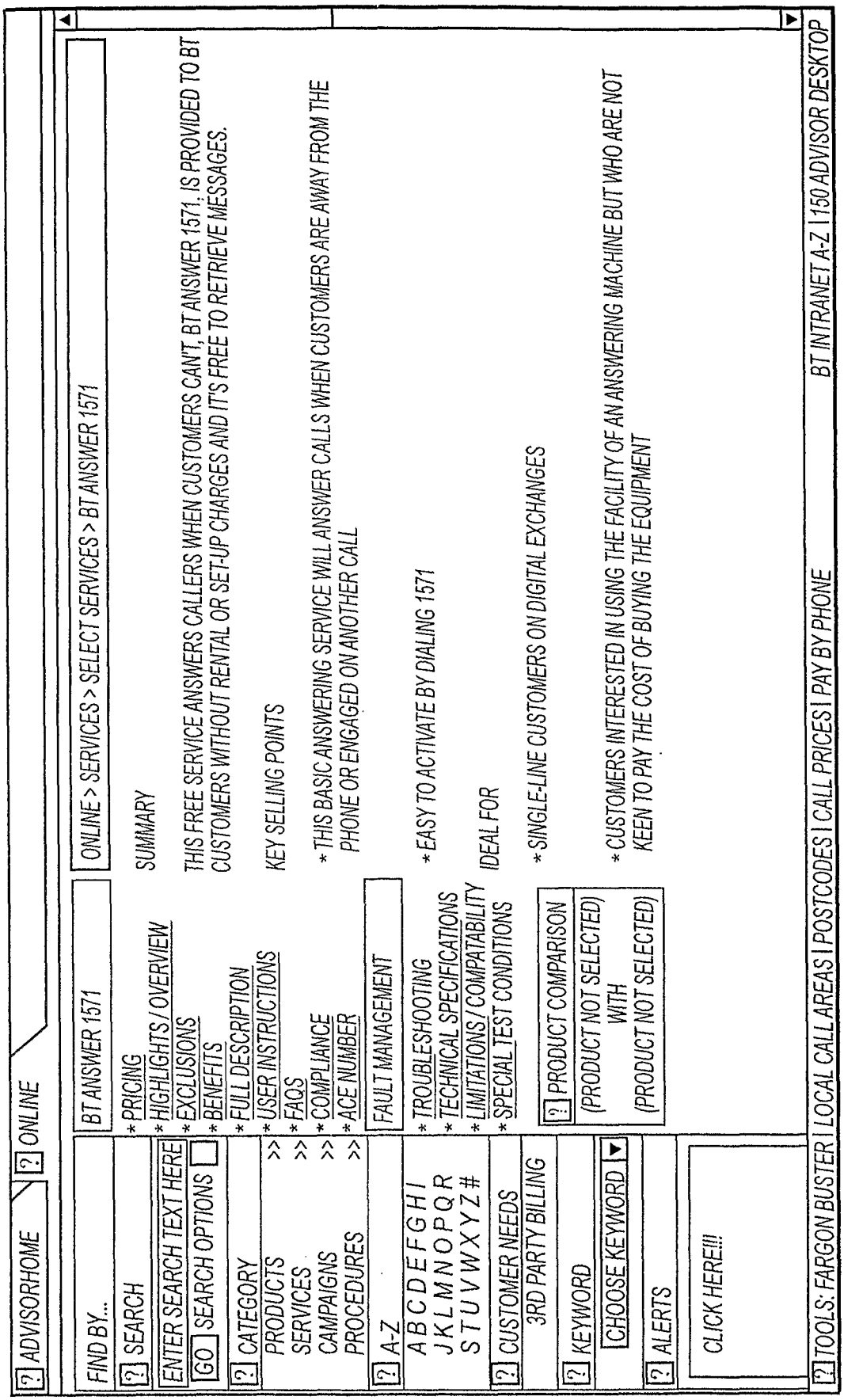

? ADVISORHOME
? ONLINE
FIND BY...
? SEARCH
ENTER SEARCH TEXT HERE
GO SEARCH OPTIONS
? CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
? A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
? CUSTOMER NEEDS
3RD PARTY BILLING
? KEYWORD
CHOOSE KEYWORD
? ALERTS
CLICK HERE!!!
BT ANSWER 1571
* PRICING
* HIGHLIGHTS / OVERVIEW
* EXCLUSIONS
* BENEFITS
* FULL DESCRIPTION
* USER INSTRUCTIONS
* FAQS
* COMPLIANCE
* ACE NUMBER
FAULT MANAGEMENT
* TROUBLESHOOTING
* TECHNICAL SPECIFICATIONS
* LIMITATIONS / COMPATABILITY
* SPECIAL TEST CONDITIONS
? PRODUCT COMPARISON
(PRODUCT NOT SELECTED)
WITH
(PRODUCT NOT SELECTED)
ONLINE > SERVICES > SELECT SERVICES > BT ANSWER 1571
SUMMARY
THIS FREE SERVICE ANSWERS CALLERS WHEN CUSTOMERS CAN'T, BT ANSWER 1571, IS PROVIDED TO BT CUSTOMERS WITHOUT RENTAL OR SET-UP CHARGES AND IT'S FREE TO RETRIEVE MESSAGES.
KEY SELLING POINTS
* THIS BASIC ANSWERING SERVICE WILL ANSWER CALLS WHEN CUSTOMERS ARE AWAY FROM THE PHONE OR ENGAGED ON ANOTHER CALL
* EASY TO ACTIVATE BY DIALING 1571
IDEAL FOR
* SINGLE-LINE CUSTOMERS ON DIGITAL EXCHANGES
* CUSTOMERS INTERESTED IN USING THE FACILITY OF AN ANSWERING MACHINE BUT WHO ARE NOT KEEN TO PAY THE COST OF BUYING THE EQUIPMENT
? TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP

FIG. 22

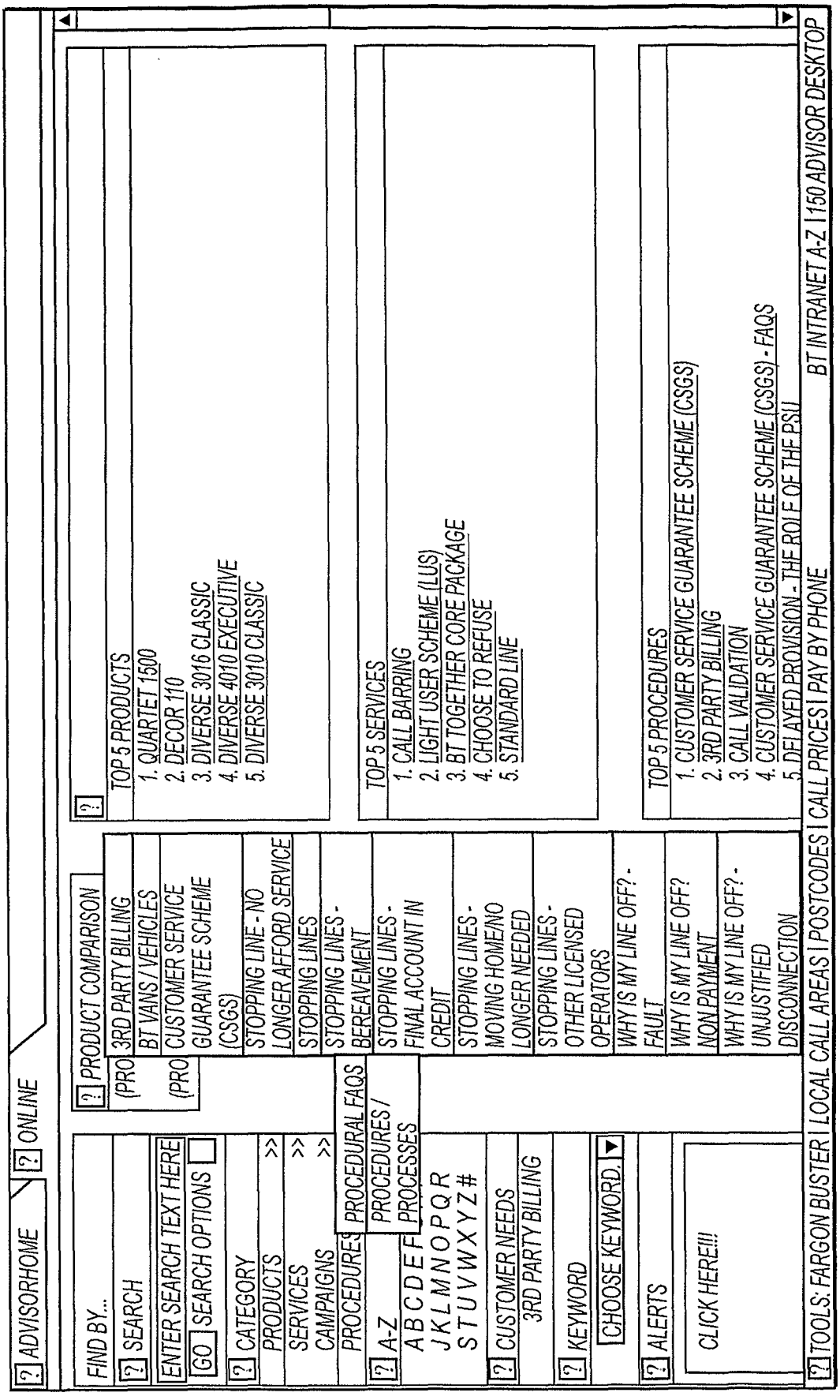

ADVISORHOME
ONLINE
FIND BY...
SEARCH
ENTER SEARCH TEXT HERE
GO
SEARCH OPTIONS
CATEGORY
PRODUCTS
SERVICES
CAMPAIGNS
PROCEDURES
A-Z
A B C D E F
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
CHOOSE KEYWORD.
ALERTS
CLICK HERE!!!
PRODUCT COMPARISON
(PRO
(PRO
3RD PARTY BILLING
BT VANS / VEHICLES
CUSTOMER SERVICE GUARANTEE SCHEME (CSGS)
STOPPING LINE - NO LONGER AFFORD SERVICE
STOPPING LINES
STOPPING LINES - BEREAVEMENT
PROCEDURAL FAQS
PROCEDURES / PROCESSES
STOPPING LINES - FINAL ACCOUNT IN CREDIT
STOPPING LINES - MOVING HOME/NO LONGER NEEDED
STOPPING LINES - OTHER LICENSED OPERATORS
WHY IS MY LINE OFF? - FAULT
WHY IS MY LINE OFF? NON PAYMENT
WHY IS MY LINE OFF? - UNJUSTIFIED DISCONNECTION
TOP 5 PRODUCTS
1. QUARTET 1500
2. DECOR 110
3. DIVERSE 3016 CLASSIC
4. DIVERSE 4010 EXECUTIVE
5. DIVERSE 3010 CLASSIC
TOP 5 SERVICES
1. CALL BARRING
2. LIGHT USER SCHEME (LUS)
3. BT TOGETHER CORE PACKAGE
4. CHOOSE TO REFUSE
5. STANDARD LINE
TOP 5 PROCEDURES
1. CUSTOMER SERVICE GUARANTEE SCHEME (CSGS)
2. 3RD PARTY BILLING
3. CALL VALIDATION
4. CUSTOMER SERVICE GUARANTEE SCHEME (CSGS) - FAQS
5. DEFAYED PROVISION - THE ROLE OF THE PSU
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP

FIG. 23

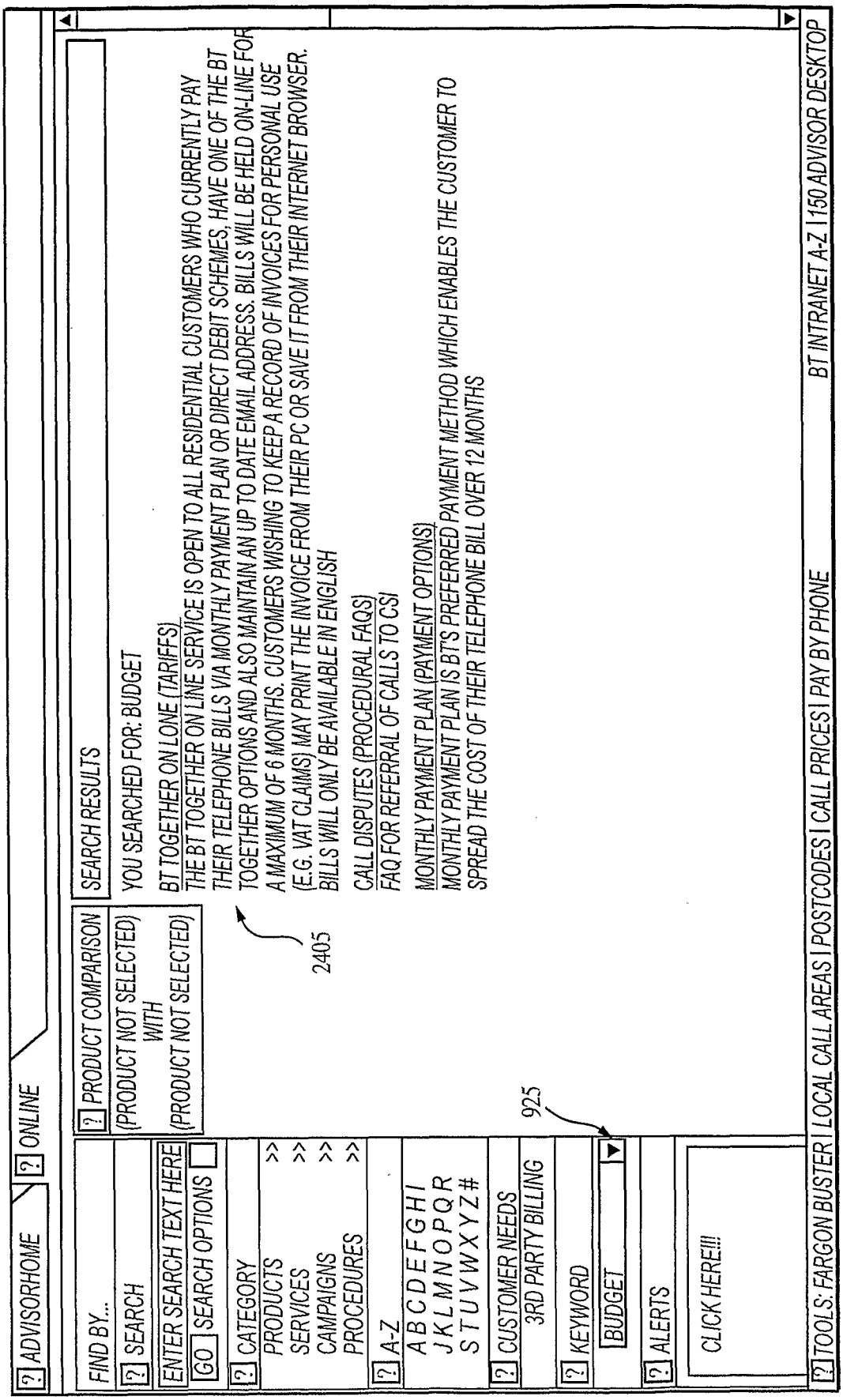

ADVISORHOME
ONLINE
FIND BY...
SEARCH
ENTER SEARCH TEXT HERE
GO
SEARCH OPTIONS
CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
BUDGET
ALERTS
CLICK HERE!!!
PRODUCT COMPARISON
(PRODUCT NOT SELECTED)
WITH
(PRODUCT NOT SELECTED)
SEARCH RESULTS
YOU SEARCHED FOR: BUDGET
BT TOGETHER ON LONE (TARIFFS)
THE BT TOGETHER ON LINE SERVICE IS OPEN TO ALL RESIDENTIAL CUSTOMERS WHO CURRENTLY PAY THEIR TELEPHONE BILLS VIA MONTHLY PAYMENT PLAN OR DIRECT DEBIT SCHEMES, HAVE ONE OF THE BT TOGETHER OPTIONS AND ALSO MAINTAIN AN UP TO DATE EMAIL ADDRESS. BILLS WILL BE HELD ON-LINE FOR A MAXIMUM OF 6 MONTHS. CUSTOMERS WISHING TO KEEP A RECORD OF INVOICES FOR PERSONAL USE (E.G. VAT CLAIMS) MAY PRINT THE INVOICE FROM THEIR PC OR SAVE IT FROM THEIR INTERNET BROWSER. BILLS WILL ONLY BE AVAILABLE IN ENGLISH
CALL DISPUTES (PROCEDURAL FAQS)
FAQ FOR REFERRAL OF CALLS TO CSI
MONTHLY PAYMENT PLAN (PAYMENT OPTIONS)
MONTHLY PAYMENT PLAN IS BTS PREFERRED PAYMENT METHOD WHICH ENABLES THE CUSTOMER TO SPREAD THE COST OF THEIR TELEPHONE BILL OVER 12 MONTHS
2405
925
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP

FIG. 24

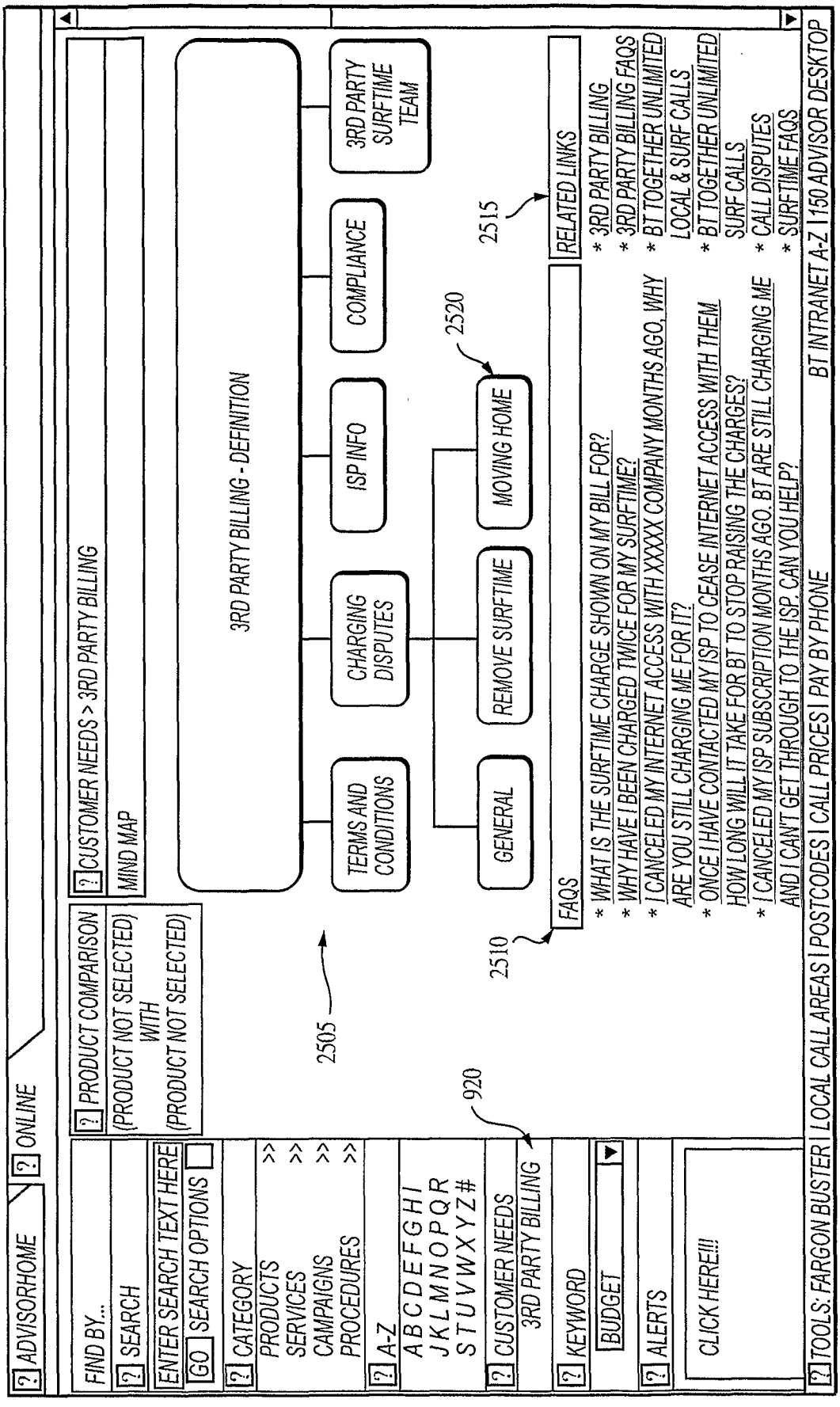

ADVISORHOME
ONLINE
FIND BY...
SEARCH
ENTER SEARCH TEXT HERE
GO SEARCH OPTIONS
CATEGORY
PRODUCTS >>
SERVICES >>
CAMPAIGNS >>
PROCEDURES >>
A-Z
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z #
CUSTOMER NEEDS
3RD PARTY BILLING
KEYWORD
BUDGET
ALERTS
CLICK HERE!!!
PRODUCT COMPARISON
(PRODUCT NOT SELECTED) WITH (PRODUCT NOT SELECTED)
CUSTOMER NEEDS > 3RD PARTY BILLING
MIND MAP
3RD PARTY BILLING - DEFINITION
TERMS AND CONDITIONS
CHARGING DISPUTES
ISP INFO
COMPLIANCE
3RD PARTY SURFTIME TEAM
GENERAL
REMOVE SURFTIME
MOVING HOME
FAQS
* WHAT IS THE SURFTIME CHARGE SHOWN ON MY BILL FOR?
* WHY HAVE I BEEN CHARGED TWICE FOR MY SURFTIME?
* I CANCELED MY INTERNET ACCESS WITH XXXXX COMPANY MONTHS AGO, WHY ARE YOU STILL CHARGING ME FOR IT?
* ONCE I HAVE CONTACTED MY ISP TO CEASE INTERNET ACCESS WITH THEM HOW LONG WILL IT TAKE FOR BT TO STOP RAISING THE CHARGES?
* I CANCELED MY ISP SUBSCRIPTION MONTHS AGO. BT ARE STILL CHARGING ME AND I CAN'T GET THROUGH TO THE ISP. CAN YOU HELP?
RELATED LINKS
* 3RD PARTY BILLING
* 3RD PARTY BILLING FAQS
* BT TOGETHER UNLIMITED LOCAL & SURF CALLS
* BT TOGETHER UNLIMITED SURF CALLS
* CALL DISPUTES
* SURFTIME FAQS
TOOLS: FARGON BUSTER | LOCAL CALL AREAS | POSTCODES | CALL PRICES | PAY BY PHONE
BT INTRANET A-Z | 150 ADVISOR DESKTOP
2505
2510
2515
2520
920

FIG. 25

FIG. 26

FIG. 26A	FIG. 26B
FIG. 26C	FIG. 26D

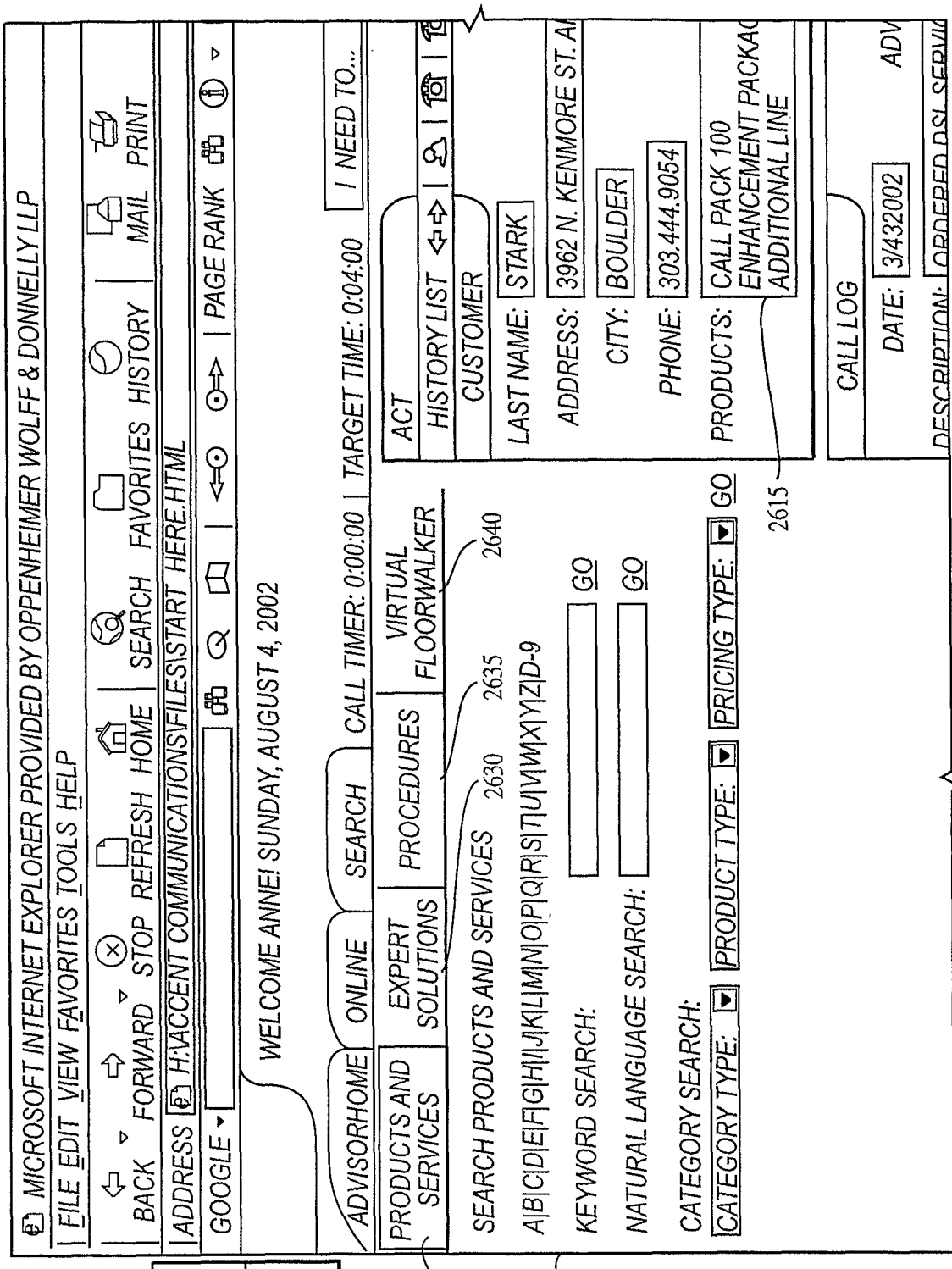


FIG. 26A

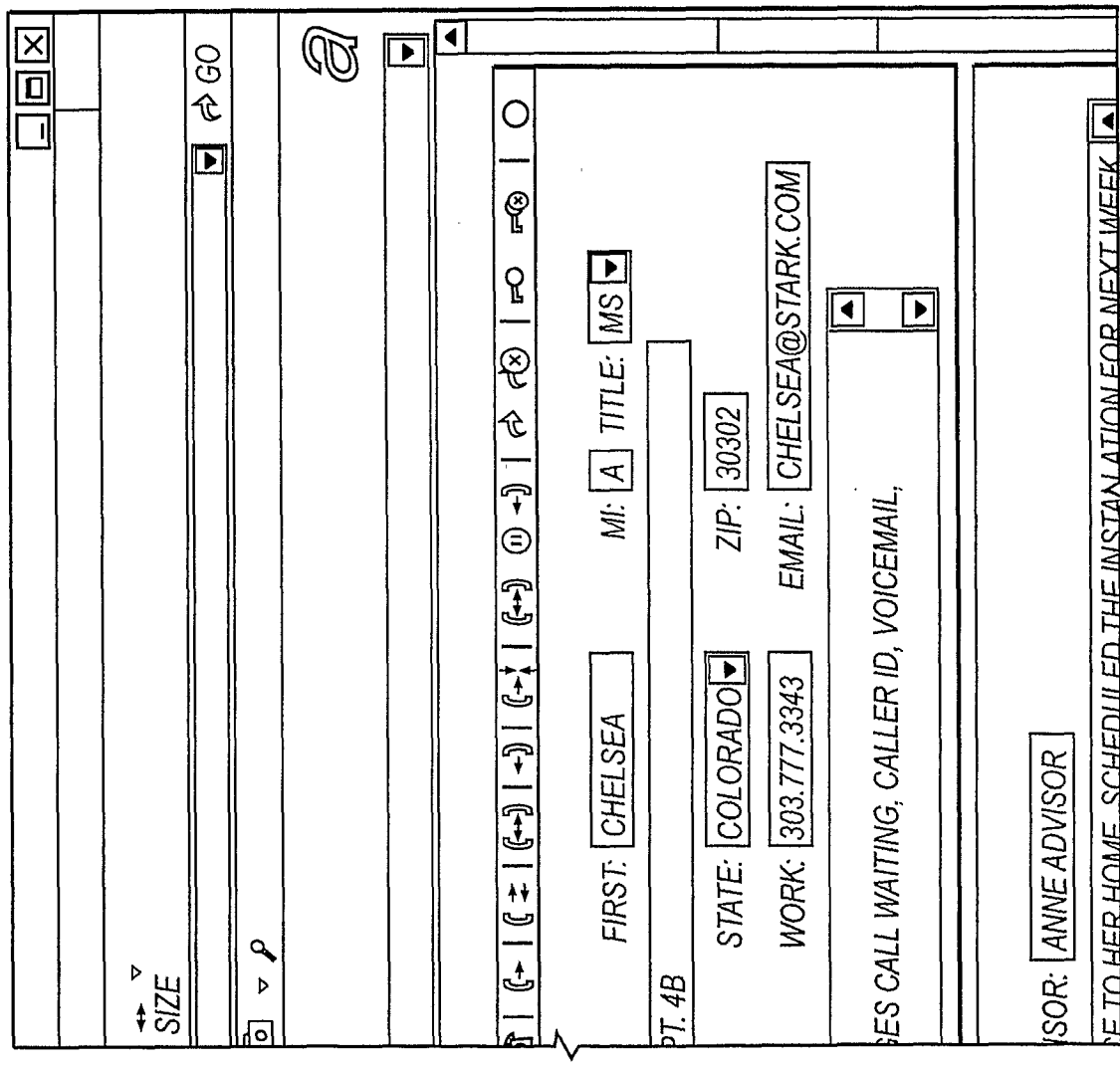

SIZE
GO
FIRST: CHELSEA
MI: A
TITLE: MS
PT. 4B
STATE: COLORADO
ZIP: 30302
WORK: 303.777.3343
EMAIL: CHELSEA@STARK.COM
ES CALL WAITING, CALLER ID, VOICEMAIL,
SOR: ANNE ADVISOR
E TO HER HOME. SCHEDULED THE INSTALLATION FOR NEXT WEEK

FIG. 26B

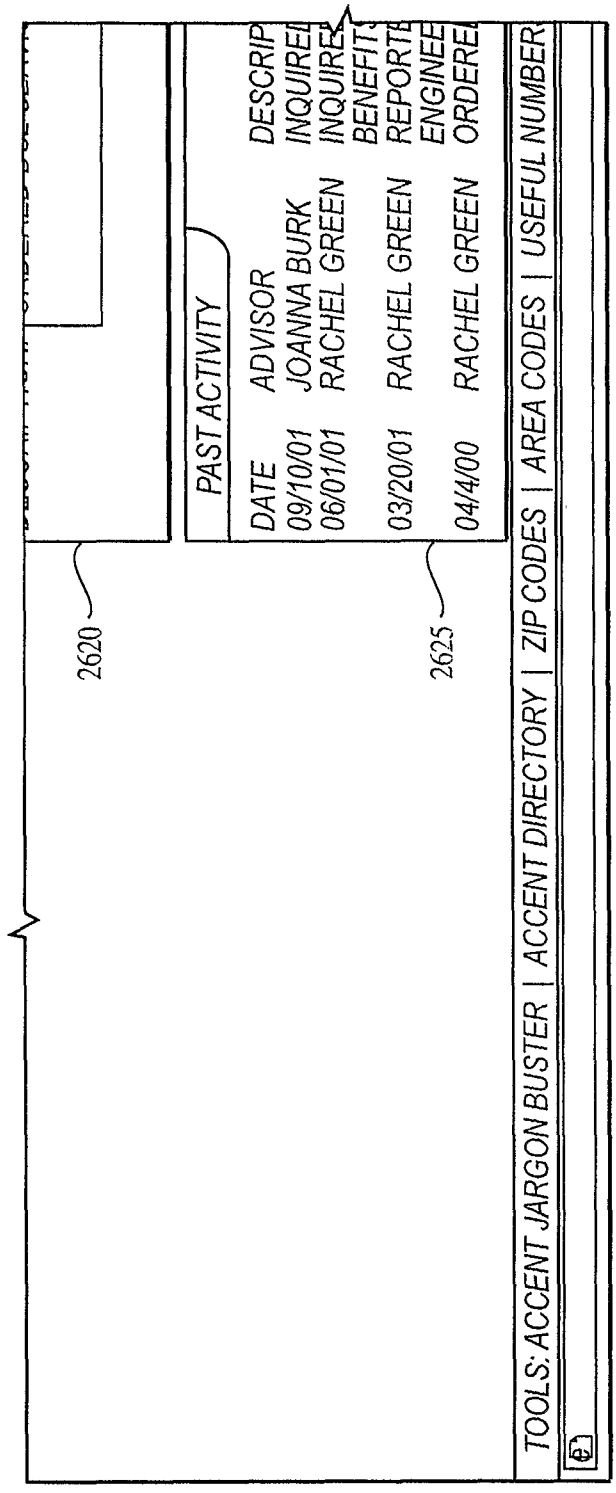

2620
2625
PAST ACTIVITY
DATE ADVISOR
09/10/01 JOANNA BURK
06/01/01 RACHEL GREEN
03/20/01 RACHEL GREEN
04/4/00 RACHEL GREEN
TOOLS: ACCENT JARGON BUSTER | ACCENT DIRECTORY | ZIP CODES | AREA CODES | USEFUL NUMBER

FIG. 26C

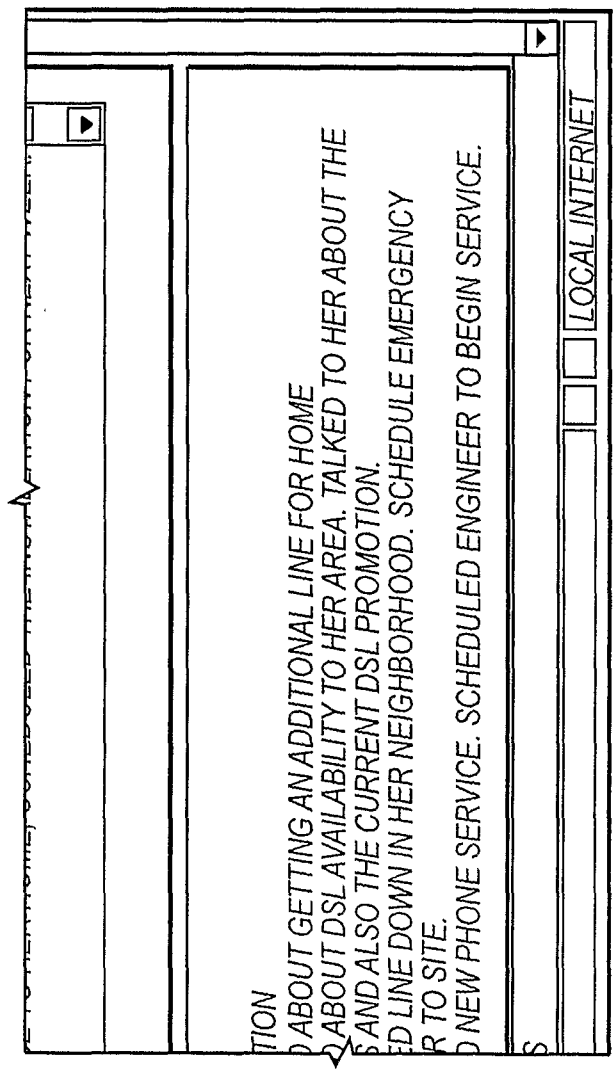

TION
ABOUT GETTING AN ADDITIONAL LINE FOR HOME
ABOUT DSL AVAILABILITY TO HER AREA. TALKED TO HER ABOUT THE
AND ALSO THE CURRENT DSL PROMOTION.
D LINE DOWN IN HER NEIGHBORHOOD. SCHEDULE EMERGENCY
R TO SITE.
D NEW PHONE SERVICE. SCHEDULED ENGINEER TO BEGIN SERVICE.
S
LOCAL INTERNET

FIG. 26D

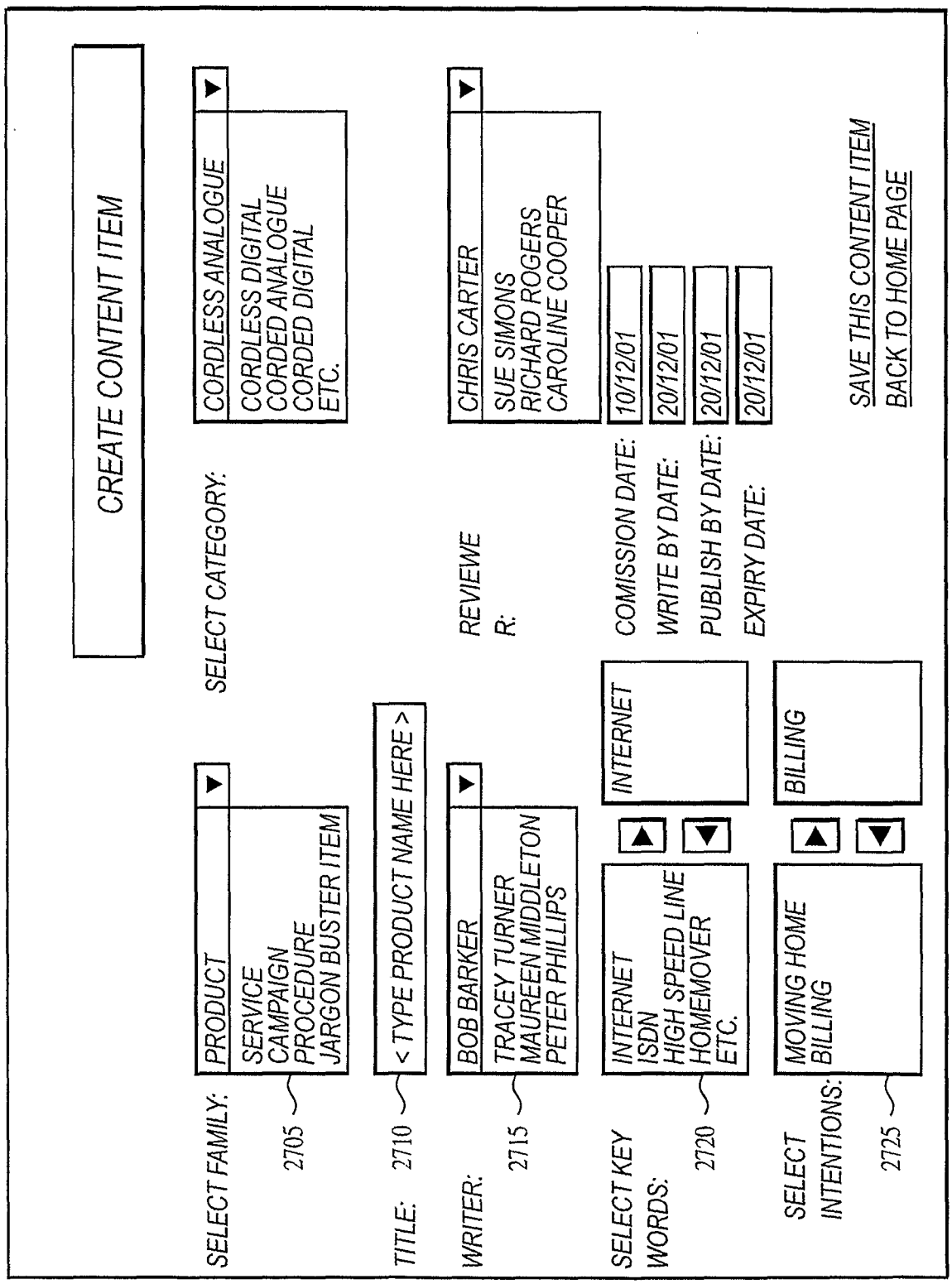

CREATE CONTENT ITEM
SELECT FAMILY:
PRODUCT
SERVICE
CAMPAIGN
PROCEDURE
JARGON BUSTER ITEM
2705
SELECT CATEGORY:
CORDLESS ANALOGUE
CORDLESS DIGITAL
CORDED ANALOGUE
CORDED DIGITAL
ETC.
TITLE:
2710
< TYPE PRODUCT NAME HERE >
WRITER:
BOB BARKER
TRACEY TURNER
MAUREEN MIDDLETON
PETER PHILLIPS
2715
REVIEWER:
CHRIS CARTER
SUE SIMONS
RICHARD ROGERS
CAROLINE COOPER
SELECT KEY WORDS:
INTERNET
ISDN
HIGH SPEED LINE
HOMEMOVER
ETC.
2720
COMISSION DATE:
10/12/01
WRITE BY DATE:
20/12/01
PUBLISH BY DATE:
20/12/01
EXPIRY DATE:
20/12/01
SELECT INTENTIONS:
BILLING
MOVING HOME
BILLING
2725
SAVE THIS CONTENT ITEM
BACK TO HOME PAGE

FIG. 27

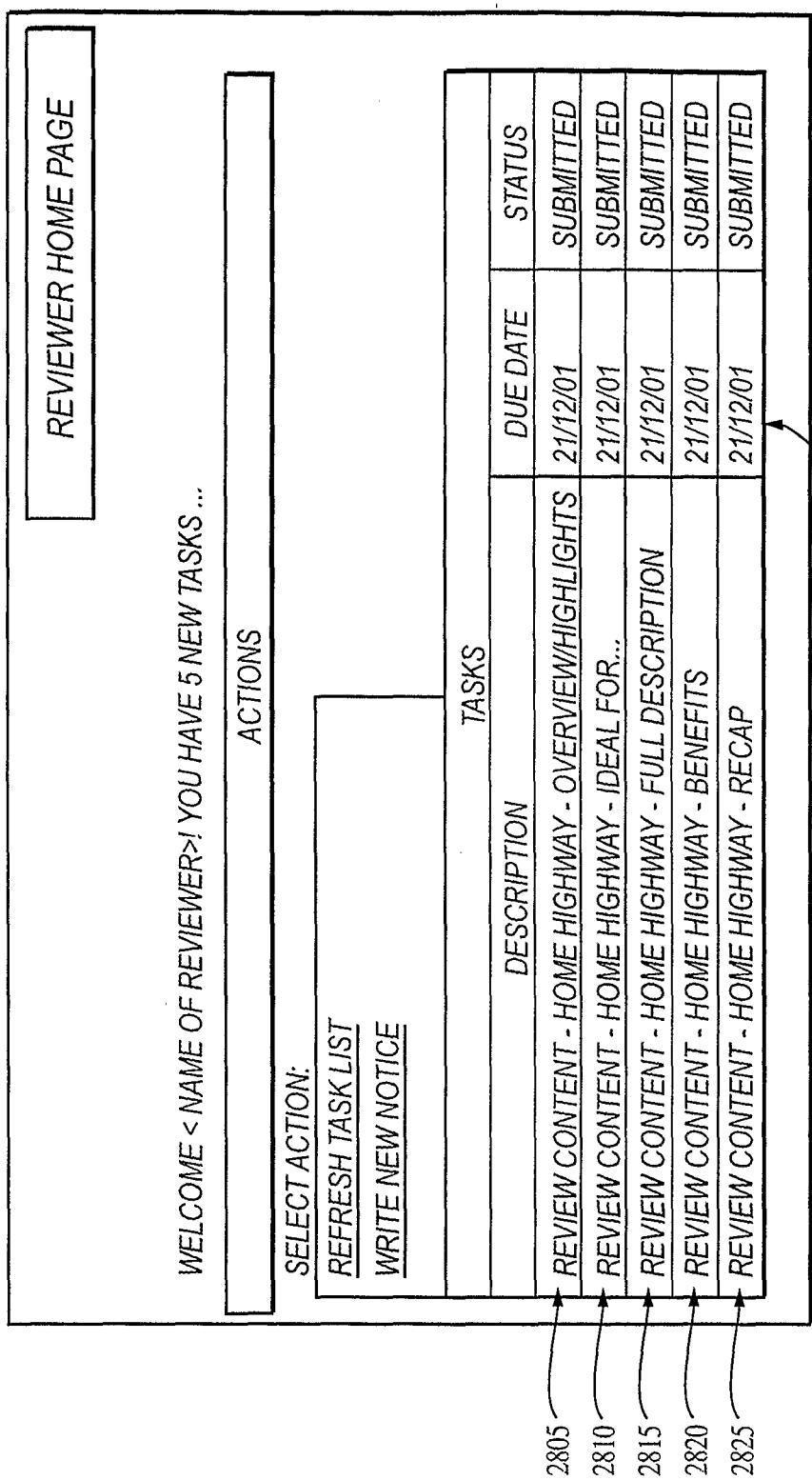
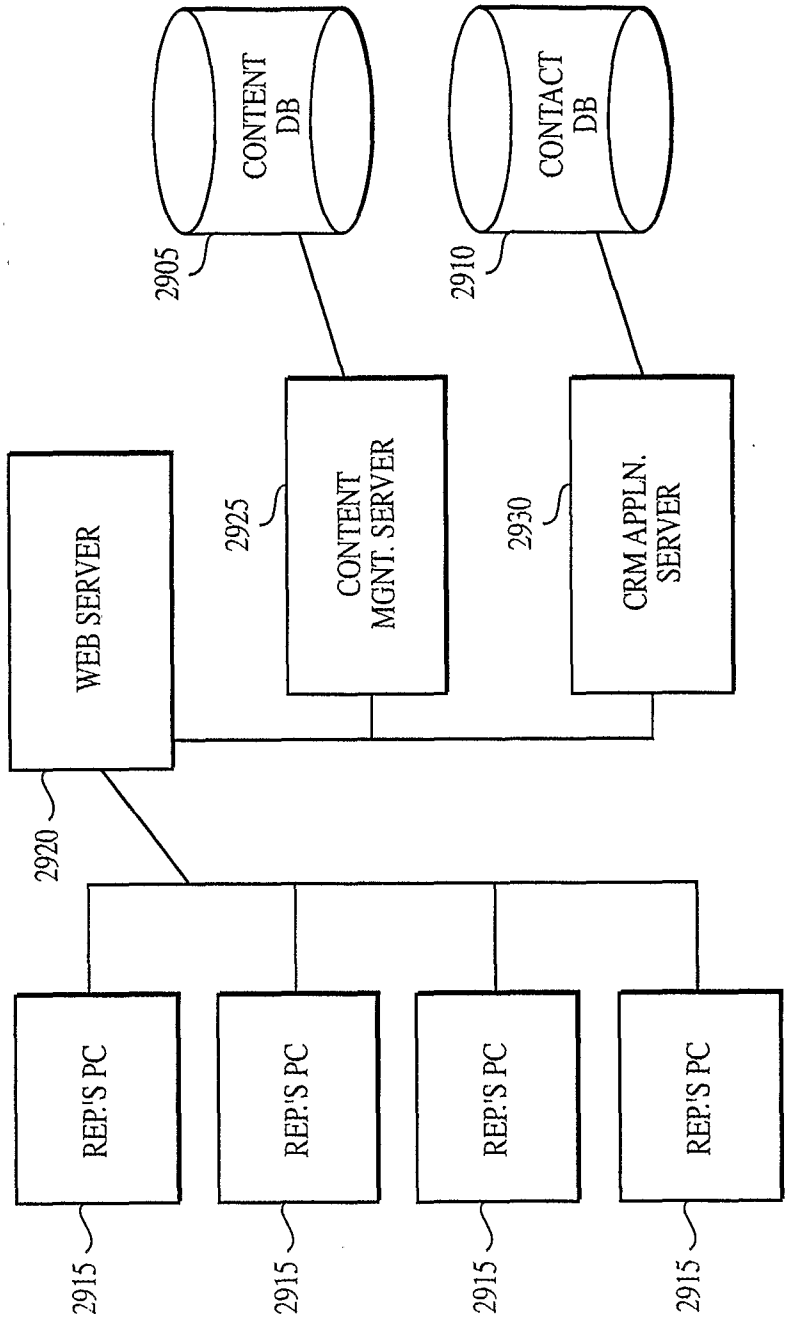
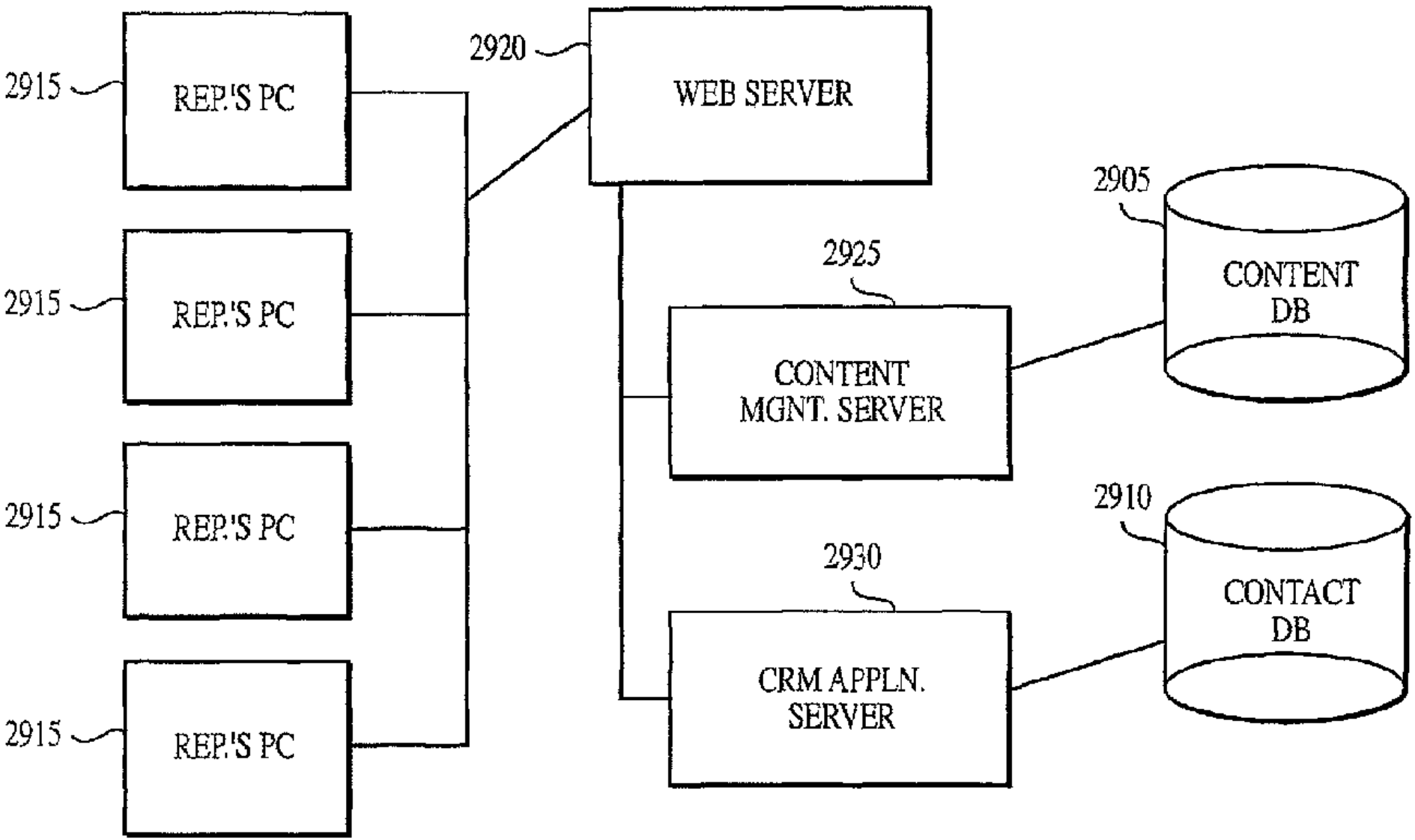

REVIEWER HOME PAGE
WELCOME < NAME OF REVIEWER>! YOU HAVE 5 NEW TASKS ...
ACTIONS
SELECT ACTION:
REFRESH TASK LIST
WRITE NEW NOTICE
TASKS
DESCRIPTION
DUE DATE
STATUS
REVIEW CONTENT - HOME HIGHWAY - OVERVIEW/HIGHLIGHTS
21/12/01
SUBMITTED
REVIEW CONTENT - HOME HIGHWAY - IDEAL FOR...
21/12/01
SUBMITTED
REVIEW CONTENT - HOME HIGHWAY - FULL DESCRIPTION
21/12/01
SUBMITTED
REVIEW CONTENT - HOME HIGHWAY - BENEFITS
21/12/01
SUBMITTED
REVIEW CONTENT - HOME HIGHWAY - RECAP
21/12/01
SUBMITTED
2805
2810
2815
2820
2825
2830

FIG. 28



TC2: 595255

FIG. 29


2915
REP.'S PC
2915
REP.'S PC
2915
REP.'S PC
2915
REP.'S PC
2920
WEB SERVER
2925
CONTENT
MGNT. SERVER
2930
CRM APPLN.
SERVER
2905
CONTENT
DB
2910
CONTACT
DB