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Inventor(s)	Gorny; Tomas

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### System and Method of a Customer Management System

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#### Abstract

A system and method are disclosed for an interface system comprising a communication device and a system administrator, the system administrator is configured to initiate a setup process, receive an identification number, receive user information, and in response to the setup process, associate the identification number with the user information.

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<b>Inventors:</b>	<b>Gorny; Tomas (Scottsdale, AZ)</b>
<b>Applicant:</b>	<b>Nextiva, Inc. (Scottsdale, AZ)</b>
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## **Background/Summary**

CROSS-REFERENCE TO RELATED APPLICATIONS [0001] This application is a continuation of U.S. patent application Ser. No. 16/731,907, filed Dec. 31, 2019, entitled “System and Method of a Customer Management System,” which is a continuation of U.S. patent application Ser. No. 15/078,818, filed on Mar. 23, 2016, entitled “System and Method of a Customer Management System,” now U.S. Pat. No. 10,551,989, which claims the benefit under 35 U.S.C. § 119(e) to U.S. Provisional Application No. 62/169,215, filed Jun. 1, 2015, entitled “System and Method of a User Interface System.” U.S. patent application Ser. No. 16/731,907, U.S. Pat. No. 10,551,989, and U.S. Provisional Application No. 62/169,215 are assigned to the assignee of the present application.

### **TECHNICAL FIELD**

[0002] The present disclosure relates generally to a system and a method for telecommunications and specifically to a customer management system.

### **BACKGROUND**

[0003] In a typical user interface, most users cannot access all features because the interface is too complicated even for technologically adept users. For enterprise telecommunications systems, in particular, access to useful features might require many steps, which take too long to accomplish and are overly complicated.

[0004] Prior art telecommunication user interfaces require a team of administrators, and/or customer service telephone calls to fully utilize powerful features of a communication interface. Traditional prior art systems sacrifice functionality for ease of use or provide more functionality at the expense of making a difficult and overly complex user interface. In fact, prior art user interfaces have been unable to create a user interface that is simple to use while still providing high functionality. Some, traditional prior art systems add more features, without simplifying the user interface to make the features easy to use. Other prior art systems attempt to simplify the user interface, but, in so doing, eliminate many user-desired functions. The lack of an easy-to-use interface that also provides high functionality is undesirable.

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## **Description**

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0005] A more complete understanding of the present invention may be derived by referring to the detailed description when considered in connection with the following illustrative figures. In the figures, like reference numbers refer to like elements or acts throughout the figures.

[0006] FIG. 1 illustrates an exemplary customer management system according to a preferred embodiment;

[0007] FIG. 2 illustrates the system administrator of FIG. 1 in greater detail according to an embodiment;

[0008] FIG. 3 illustrates the end user system of FIG. 1 in greater detail according to an embodiment;

[0009] FIG. 4 illustrates the entities of FIG. 1 in greater detail according to an embodiment;

[0010] FIG. 5 illustrates a user interface according to an embodiment;  
[0011] FIG. 6 illustrates an exemplary method of an account setup according to an embodiment;  
[0012] FIGS. 7A-7I illustrate an account setup wizard according to an embodiment;  
[0013] FIGS. 8A-8G illustrate a user overview wizard according to the user interface of FIG. 5;  
[0014] FIG. 9 illustrates an exemplary method of an accordion function;  
[0015] FIGS. 10A-10D illustrate a locations overview wizard according to the user interface of FIG. 5;  
[0016] FIGS. 11A-11B illustrate an advanced routing wizard according to the user interface of FIG. 5;  
[0017] FIG. 12 illustrates a device wizard according to the user interface of FIG. 5;  
[0018] FIGS. 13A-13C illustrate a call centers wizard according to the user interface of FIG. 5;  
[0019] FIGS. 14A-14C illustrate a settings wizard according to the user interface of FIG. 5;  
[0020] FIGS. 15A-15B illustrate an account wizard according to the user interface of FIG. 5; and  
[0021] FIGS. 16A-16B illustrate a user portal according to the user interface of FIG. 5.

#### DETAILED DESCRIPTION

[0022] Aspects and applications of the invention presented herein are described below in the drawings and detailed description of the invention. Unless specifically noted, it is intended that the words and phrases in the specification and the claims be given their plain, ordinary, and accustomed meaning to those of ordinary skill in the applicable arts.

[0023] In the following description, and for the purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the various aspects of the invention. It will be understood, however, by those skilled in the relevant arts, that the present invention may be practiced without these specific details. In other instances, known structures and devices are shown or discussed more generally in order to avoid obscuring the invention. In many cases, a description of the operation is sufficient to enable one to implement the various forms of the invention, particularly when the operation is to be implemented in software. It should be noted that there are many different and alternative configurations, devices and technologies to which the disclosed inventions may be applied. The full scope of the inventions is not limited to the examples that are described below.

[0024] FIG. 1 illustrates an exemplary customer management system **100**, according to a preferred embodiment. Customer management system **100** comprises a system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, one or more entities **140**, network **150**, and communication links **152**, **154a-n**, **156**, and **158**. Although a single system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, one or more entities **140**, a single network **150**, and communication links **152**, **154a-n**, **156**, and **158** are shown and described; embodiments contemplate any number of system administrators **110**, end user systems **120a-n**, cloud datastores **130**, entities **140**, networks **150**, or communication links **152**, **154a-n**, **156**, and **158** according to particular needs.

[0025] In one embodiment, system administrator **110** comprises server **112** and database **114**. Server **112** is programmed to access, update and provide system administration, system updating, interface hosting, and database management associated with one or more end user systems **120a-n**, one or more cloud datastores **130**, and/or one or more entities **140**, as discussed below in more detail. Database **114** comprises one or more databases or other data storage arrangements at one or more locations, local to, or remote from, system administrator **110**. In one embodiment, one or more databases **114** is coupled with one or more servers **112** using one or more local area networks (LANs), metropolitan area networks (MANs), wide area networks (WANs), network **150**, such as, for example, the Internet, or any other appropriate wire line, wireless, or any other communication links. One or more databases **114** stores data that is made available and may be used by one or more servers **112** according to the operation of customer management system **100**.

[0026] In one embodiment, one or more end user systems **120a-n** comprises an end user system

such as, for example, a customer, buyer, seller, retailer, or any other business or enterprise coupled with one or more entities **140**. Each of the one or more end user systems **120a-n** comprises one or more communication devices **124**. In addition, or as an alternative, each communication device **124** provides one or more end user systems **120a-n** with a channel of communication between each of the one or more end user systems **120a-n** and one or more entities **140**. One or more end user systems **120a-n** may be coupled with one or more entities **140** by network **150** via communication links **154a**, **154b**, and **154n**.

[0027] According to an embodiment, one or more cloud datastores **130** comprises any server, system, or data arrangement that performs any one of the function described in connection with system administrators **110**. One or more cloud datastores **130** comprise server **132** and database **134** that may comprise any database or datastore that replicates or works in connection with system administrator **110** according to any suitable distributed computing or remote data storage configuration.

[0028] In an embodiment, one or more entities **140** may be any entity, such as, for example, a business, company, enterprise, distributor, retailer, call-center, CRM specialist system, customer service system, help desk system, telephone or media service, social media service (such as FACEBOOK, TWITTER, or the like) or any entity which communicates with customers, either its own customers or the customers of another entity **140**. One or more entities **140** may operate on one or more computers comprising one or more servers **142** and one or more databases **144** or other data storage arrangements at one or more locations which are integral to or separate from the hardware and/or software that support customer management system **100**. These one or more entities **140** utilize customer management system **100** in order to monitor, score, and analyze the interactions and communications between one or more end user systems **120a-n** and one or more entities **140**.

[0029] According to some embodiments, one or more entities **140** comprise communication services such as an email service provider, VOIP or telephony provider, or any provider of communications. According to these embodiments, the communication services interact with other entities **140** to provide all the services indicated below with respect to entities. As an example only and not by way of limitation, an entity **140** that is a call-center may use the email and/or telephone services of another entity **140** which is a communication service. According to these embodiments, some data may be stored at one or more databases **144** of one or more entities **140** as indicated above and channels between one or more end user systems **120a-n** may pass between one or more end user systems **120a-n** and any one or more entities **140**.

[0030] System administrator **110** including server **112** and database **114** is coupled with network **150** using communications link **152**, which may be any wireline, wireless, or other link suitable to support data communications between system administrator **110** and network **150**. One or more end user systems **120a-n** is coupled with network **150** using communications links **154a-n**, which may be any wireline, wireless, or other link suitable to support data communications between one or more end user systems **120a-n** and network **150**. One or more cloud datastores **130** including server **132** and database **134** may be coupled with network **150** using communications link **156**, which may be any wireless or other link suitable to support data communications between one or more cloud datastores **130** and network **150**. One or more entities **140** including server **142** and database **144** may be coupled with network **150** using communications link **158**, which may be any wireless or other link suitable to support data communications between one or more entities **140** and network **150**.

[0031] Although communication links **152**, **154a-n**, **156**, and **158** are shown as generally coupling system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, and one or more entities **140** with network **150**, system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, and one or more entities **140** may communicate directly with each other according to particular needs.

[0032] In an embodiment, network **150** includes the Internet, telephone lines, any appropriate local area networks LANs, MANs, or WANs, and any other communication network coupling system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, and one or more entities **140**. For example, data may be maintained by system administrator **110** or at one or more locations external to system administrator **110** and/or and made available to system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, one or more entities **140** using network **150** or in any other appropriate manner. Those skilled in the art will recognize that the complete structure and operation of communication network **150** and other components within customer management system **100** are not depicted or described. Embodiments may be employed in conjunction with known communications networks and other components.

[0033] In one embodiment, system administrator **110**, one or more end user systems **120a-n**, one or more cloud datastores **130**, and/or one or more entities **140** may each operate on one or more computers or computer systems that are integral to or separate from the hardware and/or software that support customer management system **100**. In addition or as an alternative, one or more users, such as end users or representatives, may be associated with customer management system **100** including system administrator **110**, one or more end user systems **120a-n**, and/or one or more entities **140**. These one or more users may include, for example, one or more computers programmed to autonomously configure, manage, and provide communications between system administrator **110**, one or more end user systems **120a-n**, and/or one or more entities **140** and/or one or more related tasks within customer management system **100**. As used herein, the term “computer” or “computer system” includes any suitable input device, such as a keypad, mouse, touch screen, microphone, or other device to input information. Any suitable output device that may convey information associated with the operation of customer management system **100**, including digital or analog data, visual information, or audio information. Furthermore, the computer includes any suitable fixed or removable non-transitory computer-readable storage media, such as magnetic computer disks, CD-ROM, or other suitable media to receive output from and provide input to customer management system **100**. The computer also includes one or more processors and associated memory to execute instructions and manipulate information according to the operation of customer management system **100**.

[0034] In one embodiment and as discussed in more detail below, customer management system **100** provides a simplified user interface for setting up, configuring, managing, and providing telecommunications within customer management system **100**. Customer management system **100** provides a user interface of the current disclosure that is easy to use while also maintaining a high level of functionality. According to an embodiment, customer management system **100** provides a user interface that sets up, manages, configures, and provides communications utilizing one or more communication platforms, such as, for example, BROADSOFT™ telecommunication service or HOMEGROWN SOLUTIONS™ telecommunication service to provide communications between system administrator **110**, one or more end user systems **120**, and/or one or more entities **140**.

[0035] As will be explained in more detail below, a user interface of customer management system **100** provides interface tools that are easy to access from local or remote locations and is configured to reduce the number of actions and time to perform set up and configuration of customer management system **100**. According to some embodiments, the user interface of customer management system **100** is located at one or more servers **112**, **122**, **132**, and **142** or remotely accesses servers through each communication device **124** using a communication protocol over network **150**. According to embodiments, each communication device **124** may be assigned one or more identification numbers, such as IP addresses, that may be used to identify a communication device **124** at a fixed location in network **150** or to identify a communication device **124** as they are moved to different access points in network **150**. According to these embodiments, communication devices **124** are associated with a user such that each communication device **124** will act the same

no matter where it is connected in network **150**. According to another embodiment, a user may associate each communication device **124** with the user's account, such that any features of that user's account may be accessed by any communication device **124** associated with the user.

[0036] For example, a user may connect a telephone, or other communication device **124**, directly to network **150** through the computer, or directly to network **150**. In addition, or as an alternative, customer management system **100** recognizes with an identification number (such as an IP address) associated with communication device **124** regardless to where in network **150**, it is connected.

[0037] According to some embodiments, system administrator **110** stores all configurations, settings, features, and functions associated with communication device **124** which provides for unplugging a communication device **124** from a first location, taking it to a second location, with the same configurations, settings, features, and functions, including the same phone number. According to some embodiments, communication device **124** may be location aware such that the configurations, settings, features, and functions associated with communication device **124** change automatically based on where or how communication device **124** connects to network **150**.

[0038] According to some embodiments, each communication device **124** is associated with an identification number, such as an IP or MAC address, such that regardless of where communication device **124** is connected in network **150**, system administrator **110** recognizes communication device **124** and associates configuration data **204** with that communication device **124**.

[0039] FIG. **2** illustrates system administrator **110** of FIG. **1** in greater detail, according to an embodiment. As discussed above, system administrator **110** comprises one or more computers at one or more locations including associated input devices, output devices, non-transitory computer-readable storage media, processors, memory, or other components for configuring, managing, and providing communications according to the operation of customer management system **100**. In addition, and as discussed in more detail below, system administrator **110** comprises server **112** and database **114**. Although system administrator **110** is shown and described as comprising a single computer, server **112** and database **114**; embodiments contemplate any suitable number of computers, servers or databases internal to or externally coupled with system administrator **110**. In addition, or as an alternative, system administrator **110** may be located internal to one or more entities **140**. In other embodiments, system administrator **110** may be located external to one or more entities **140** and may be located in, for example, a corporate or regional entity of the one or more entities **140**, according to particular needs.

[0040] Server **112** comprises system administration **222**, interface **224**, database management **226** and channel interface **228**. Although a particular configuration of server **112** is shown and described; embodiments contemplate any suitable number or combination of these, located at one or more locations, local to, or remote from, system administrator **110**, according to particular needs. In addition, or as an alternative, administration **222**, interface **224**, database management **226** and channel interface **228** may be located on multiple servers or computers at any location in customer management system **100**.

[0041] Database **114** of system administrator **110** comprises entity data **202**, configuration data **204**, channel data **206** and interface data **208**. Although, database **114** is shown and described as comprising entity data **202**, configuration data **204**, channel data **206** and interface data **208**; embodiments contemplate any suitable number or combination of these, located at one or more locations, local to, or remote from, system administrator **110**, according to particular needs.

[0042] Entity data **202** of database **114** describes the identification information of one or more entities **140** of customer management system **100**. Entity data **202** comprises identification information, such as, for example, names, addresses, company, phone numbers, email, IP addresses, and the like. In one embodiment, entity data **202** is used by system administration **222** to identify one or more entities **140** in customer management system **100** to generate particular configurations of customer management system **100** specific to each of the one or more entities **140**. As an example only and not by way of limitation, where one or more entities **140** is a

customer service center, the identification information stored in entity data **202** permits system administrator **110** to generate a particularized user interface specific to the customer service center. Specifically, system administration **222** provides a particularized user interface specific to the industry of entity **140**, the types of customers served by one or more entities **140**, and/or the types of products sold by one or more entities **140**. For example, particularized user interfaces may comprise a different arrangement of elements on user interface **500** (See FIG. 5). In one embodiment, the particularized user interfaces are stored in, for example, configuration data **204**.

[0043] Configuration data **204** of database **114** comprises data which describes the various functionalities of customer management system **100** useful to each of one or more entities **140** and one or more end user systems **120a-n**. In one embodiment, configuration data **204** comprises, for example, location data that describes where the data is generated or received by system administrator **110**, one or more end user systems **120a-n**, cloud datastores **130** and/or one or more entities **140**. In another embodiment, configuration data **204** comprises settings and parameters that describe the system-level functioning of customer management system **100**.

[0044] Channel data **206** of database **114** comprises the organization and setup of channel interface **228**. According to some embodiments, channel data **206** comprises the particular communication channels which are open to a particular end user system **120a-n** or entity **140**, the times which the communication channels are open, the protocols or metadata which describe the communication, and/or any other configuration data and setup data necessary to configure channel interface **228**. Interface data **208** of database **114** comprises the configuration, setup, and display data of user interface **224**.

[0045] System administration **222** of server **112** may configure, update, and/or administer customer management system **100**. That is, system administration **222** may provide services to configure the operation of customer management system **100** and change which data is executed and/or stored on system administrator **110**, one or more end user systems **120a-n**, and/or one or more entities **140**. Embodiments contemplate a user-configurable customer management system **100**, such that the data may be stored either singularly or redundantly on system administrator **110**, one or more end user systems **120a-n**, and/or one or more entities **140**, according to particular needs. In addition, or as an alternative, system administration **222** receives, processes, updates, creates, and stores entity data **202** and configuration data **204**.

[0046] Interface **224** of server **112** generates a user interface, such as user interface **500**, described in more detail below. Various features of interface **224** include: generating charts, storing and retrieving historical data of customer relationship management, displaying notifications, and creating and managing calendars. Interface **224** stores and retrieves data from database **114** including entity data **202**, configuration data **204**, channel data **206**, and interface data **208**.

[0047] Database management **226** of server **112** provides a data sorting, retrieval, duplication, backup, creation and/or interface manager for data stored in database **114** to efficiently provide data to end user system **120a-n** and one or more entities **140** and manage the data generated from various components of customer management system **100** that are stored in database **114**. According to some embodiments, database management **226** organizes and stores the various types of data generated from customer management system **100** to provide real-time access of the data on database **114** to operate customer management system **100**.

[0048] Channel interface **228** of server **112** generates, receives, and monitors communication between one or more entities **140** and one or more end user systems **120a-n**. For example, channel interface **228** comprises one or more of VOIP, email, internet or web-based chat, and/or other types of communication systems useful for allowing an end user system **120a-n** to contact one or more entities **140** or one or more entities **140** to contact other entities **140**. For example, channel interface **228** initiates or receives communication to communication devices **124** of one or more end user systems **120a-n**. In addition, channel interface **228** records the time, duration, date, voice, text, and other information transmitted.

[0049] FIG. 3 illustrates one or more end user systems **120a-n** of FIG. 1 in greater detail according to an embodiment. One or more end user systems **120a-n** each comprise communication devices **124**, network **150** and communication links **310a-d** and **314**. As discussed above, each of one or more end user systems **120a-n** comprise one or more computers at one or more locations including associated input devices, output devices, non-transitory computer-readable storage media, processors, memory, or other components that provide one or more end user systems **120a-n** with a channel of communication between each of one or more end user systems **120a-n** and one or more entities **140**, according to the operation of customer management system **100**. Although one or more end user systems **120a-n** is shown and described as comprising a single computer, communication devices **124** and communication links **310a-d** and **314** coupling one or more end user systems **120** to network **150**; embodiments contemplate any suitable number of computers, servers or communication devices internal to or externally coupled with network **150**.

[0050] Communication devices **124** comprise computers **302**, tablet-type devices **304**, smartphones **306** and land-line phones **308**. Although particular communication devices are shown and described; embodiments contemplate any suitable communication device, according to particular needs. In one embodiment, computers **302**, tablet-type devices **304**, smartphones **306** comprise a processor, memory and data storage. The processor may execute an operating system program stored in memory to control the overall operation of computers **302**, tablet-type devices **304**, smartphones **306**. For example, the processor may control the reception of signals and the transmission of signals within customer management system **100**. The processor may execute other processes and programs resident in memory, such as, for example, registration, identification or communication and transferring data into or out of the memory, as required by an executing process.

[0051] Those skilled in the art will recognize that one or more specific examples of end user systems **120a-n** are given by way of example and that for simplicity and clarity, only so much of the construction and operation of end user systems **120a-n** as is necessary for an understanding of the present invention is shown and described. Moreover, it is understood that one or more end user systems **120a-n** should not be construed to limit the types of communication devices in which embodiments of the present invention may be implemented. For example, one or more end user systems **120a-n** may be any device, including, but not limited to, conventional cellular or mobile telephones, smart mobile phones, an IPHONE®, an IPAD™, wireless tablet devices, paging devices, personal digital assistant devices, short message service (SMS) wireless devices, portable computers, or any other device capable of wireless or network communication.

[0052] In addition, or as an alternative, system administrator **110**, and/or one or more entities **140** provides one or more end user systems **120a-n** access to one or more entities **140** in order to communicate over one or more channels. Among other things, embodiments enable customer service, such as troubleshooting and product set up, maintenance requests, refunds, providing product information, scheduling routine maintenance, requesting on-site maintenance, walk-throughs, company information, sales, taking purchase orders, scheduling meetings, changing passwords, website help, and the like.

[0053] FIG. 4 illustrates one or more entities **140** of FIG. 1 in greater detail, according to an embodiment. As discussed above, one or more entities **140** comprises one or more computers at one or more locations including associated input devices, output devices, non-transitory computer-readable storage media, processors, memory, or other components for monitoring, scoring, and analyzing the interactions and communications between one or more end user systems **120a-n** and one or more entities **140**. In addition, and as discussed above, one or more entities **140** may be any entity, such as, for example, a business, company, enterprise, distributor, retailer, call-center, CRM specialist system, customer service system, help desk system, telephone or media service, social media service (such as FACEBOOK, TWITTER, or the like) or any entity which communicates with customers, either its own customers or the customers of another entity **140**.



[0054] One or more entities **140** comprise server **142** and database **144**. Although one or more entities **140** is shown and described as comprising a single computer, server **142** and database **144**; embodiments contemplate any suitable number of computers, servers or databases internal to or externally coupled with one or more entities **140**. In addition, or as an alternative, one or more end user systems **120a-120n** may be located internal or external to one or more entities **140**, such as, for example, a corporate or regional entity of one or more entities **140**, according to particular needs.

[0055] Server **142** of one or more entities **140** comprises one or more communication services, such as, for example, email service **402**, VOIP or telephony **404**, and communications **406**. Although a particular configuration of server **142** is shown and described; embodiments contemplate any suitable number or combination of these, located at one or more locations, local to, or remote from, one or more entities **140**, according to particular needs. In addition, or as an alternative, email service **402**, VOIP or telephony **404**, and communications **406** may be located on multiple servers or computers at any location in customer management system **100**.

[0056] Database **144** of one or more entities **140** comprises communications data **408**. Although, database **144** is shown and described as comprising communications data **408**; embodiments contemplate any suitable number or combination of these, located at one or more locations, local to, or remote from, one or more entities **140**, according to particular needs.

[0057] According to some embodiments, one or more communication services associated with server **142**, interact with other entities **140** to provide communication services. For example, an entity **140** that is a call-center may use email service **402** and communications data **408** of another entity **140** or use VOIP or telephony **404** services and communications data **408** of another entity. Likewise, an entity **140** may use communications **406** and communications data **408** of another entity, according to particular needs. According to these embodiments, data may be stored at communications data **408** of one or more entities **140** as indicated above and channels between one or more end user systems **120a-n** may pass between one or more end user systems **120a-n** and any one or more entities **140**.

[0058] FIG. 5 illustrates user interface **500** according to an embodiment. User interface **500** comprises taskbar **502**, status bar **506**, quick launch button **510**, account summary **512**, call summary **516**, activity summary **520**, and dashboards **526**. Although user interface **500** is shown and described as comprising a particular taskbar **502**, status bar **506**, quick launch button **510**, account summary **512**, call summary **516**, activity summary **520**, and dashboards **526**; embodiments contemplate any suitable number or types of taskbars, status bars, buttons, summaries or dashboards, according to particular needs.

[0059] In one embodiment, one or more end user systems **120a-120n** of customer management system **100** access user interface **500** to monitor, modify, and navigate customer management system **100** generated by interface **224** of server **112**. As an example only and not by way of limitation, user interface **500** provides one or more end user systems **120a-120n** with summaries, statistics, and charts illustrating use and status of, for example, a telecommunication system.

[0060] In other embodiments, user interface **500** provides access to high functionality, while providing a simplified and intuitive interface with viewing of information of customer management system **100**, with one click access from login to access one or more features of customer management system **100**. This provides quick access to high functionalities while providing a complete overview of an account in an intuitive way.

[0061] As will be discussed in more detail below, user interface **500** comprises a main information screen for a user login to user interface **500**. User interface **500** may provide status and information about various wizard functionalities. According to an embodiment, status is received from a status system via an Application Program Interface (API) across one or more, or all, of the wizards or functionalities associated with user interface **500**. Embodiments of the present disclosure provide a user with a quick and easy insight of the user interface system through user interface **500**.

[0062] Taskbar **502** of user interface **500** comprises one or more user-selectable top-level menu

choices **504a-504h**. That is, taskbar **502** comprises users **504a**, locations **504b**, advanced routing **504c**, devices **504d**, call center **504e**, reporting **504f**, settings **504g**, and user-selectable menu choice for adjusting log-in and user settings **504h**. When top-level menu choice **504a-504h** is selected from taskbar **502**, user interface **500** is updated to display content representing that selection. For example, when users **504a** is selected from taskbar **502**, user interface **500** main wizard is replaced with user submenu wizard **600** (See FIG. 6). When other top-level menu choices **504a-504h** are selected, the user interface **500** main wizard is replaced with the associated submenu wizard, as described more fully below.

[0063] According to some embodiments, taskbar **502** links to an overview wizard for one or more wizards, functions, or features of customer management system **100**. For example, embodiments of the present disclosure provide a user a one click method to access any feature or function of the user interface system. According to an embodiment, a user of customer management system **100** can manage one or more other users of the system with, for example, a single input of the user interface system, such as a single click of a mouse. This provides for easy access to tools and general overviews of wizards.

[0064] Status bar **506** of user interface **500** comprises system status indicators **508a-508d**, which illustrate the status of one or more subsystems of customer management system **100**. For example, system status indicators **508a-508d** may comprise a label and a button, wherein the color of the button indicates a status of the system. System labels may comprise, for example, “Office,” “vFAX,” “Call Center,” and “SIP Trunking.” Colors of the buttons may comprise, for example, green for a fully-functioning subsystem, yellow for a partially-functioning subsystem, and/or orange for an inactive subsystem.

[0065] Quick launch button **510** of user interface **500** comprises a user-selectable drop-down box that links to one or more submenus, features, or system configuration menus of user interface **500**.

[0066] Account summary **512** of user interface **500** comprises an information summary of account information related to the currently logged-in account. Account information may be compiled from one or more databases of system administrator **110**, one or more end user systems **120a-120n**, and/or one or more entities **140**. Such information of account summary **512** may comprise, for example, company name **514a**, account number **514b**, personal identification number (PIN) **514c**, minutes used since a previous date **514d**, account balance for a future date **514e**, quick links configuration button **514f**, update billing quick link **514g**, support center quick link **514h**, call history quick link **514i**, and transfer number status quick link **514j**. Although particular information and links are shown and described; embodiments contemplate any suitable information or quick links and any suitable arrangement of the same, according to particular needs.

[0067] Call summary **516** of user interface **500** comprises an information summary of call information related to the currently logged-in account. Call summary **516** comprises information sorted according to a time period **518a** that may be user-adjusted by a time period drop down selection tab **518b**. Based on time period **518a** selected, call summary **516** displays call information according to the time period. For example, time period **518a** selected in FIG. 5 is “today.” In addition or as an alternative, call summary **516** may display call information or call history. For example, a dropdown box provides a selection box for one or more of “today,” “yesterday,” “last seven days,” “last 30 days,” and other like time periods. In addition, the call information may comprise the number of inbound calls **518c**, outbound calls **518d**, toll-free calls **518e**, international calls **518f**, calls by location **518g**, and calls by agent **518h**. Although the call information is shown and described as the number of calls; embodiments contemplate any call information or combination of call information, according to particular needs.

[0068] Activity summary **520** of user interface **500** comprises customizable charts and graphs that display the information of call summary **516** according to one or more user-selectable configurations. For example, activity summary **520** comprises chart **522** that display the number of calls for each of inbound calls, outbound calls, toll-free calls, and international calls. This call

information may be configured to display different types of charts or graphs and different types of call information. For example, activity summary **520** comprises a chart selection tool **524a**, an activity configuration button **524b**, and a units selector **524c**. Chart selection tool **524a** comprises a drop down box that permits a user to select a different type of chart or graph, such as, for example, pie charts, line charts, bar charts, tables, or the like. In response a selection of a different type of chart or graph, chart **422** of activity summary **520** displays a presentation of information according to the selection. In one embodiment, activity configuration button **524b** comprises a link to a configuration of activity information such as selecting what type of information to present, how that information is presented, or other configuration options, according to particular needs. In another embodiment, unit selector **524c** permits a selection of what units the information in chart **522** is displayed in. According to the illustrated example, unit selector **524c** permits a selection between calls and minutes; however embodiments contemplate any suitable units and any suitable presentation of information, such as dollars, time period, number of users, locations, devices, customers, or any like unit necessary for the presentation of call information.

[0069] Dashboards **526** of user interface **100** comprises users dashboard **530**, locations dashboard **532**, devices dashboard **534**, settings dashboard **536**, advanced routing dashboard **538**, call center dashboard **540**, reporting dashboard **542**, and most viewed dashboard **544**. Although dashboards **526** is shown and described as comprising particular dashboards; embodiments contemplate any suitable number or types of dashboards, according to particular needs. In addition, or as an alternative, as disused above, taskbar **502** comprises one or more user-selectable top-level menu choices **504a-504h** that link to one or more dashboards **526**.

[0070] According to an embodiment, dashboards **530-544** of user interface **500** correspond to high-level functionalities or other interfaces or wizards of customer management system **100**. That is, dashboards **530-544** may provide one or more of the most commonly used features and one or more scores. As an example only and not by way of limitation, user score **546a** for users dashboard **530** indicates the number of users set up on customer management system **100**. According to some embodiments, a score represents the number of activities, the forms, or other functions within the interface or wizard associated with dashboards **530-544**. In addition, or as an alternative, each of one or more dashboards **530-544** may display information relating to one or more subwizards associated with the dashboard and may comprise links to configuration settings or features associated with the subwizards.

[0071] For example, users dashboard **530** may comprise a user count **546a**, an add user link **546b**, a manager users link **546c**, and a more users link **546d**. Locations dashboard **532** may comprise a locations count **548a**, a create locations link **548b**, and a manage locations link **548c**. Devices dashboard **534** may comprise a devices count **550a**, a add devices link **550b**, and a manage devices link **550c**. Settings dashboard **536** may comprise a schedules count **552a**, a schedules link **552b**, and a reporting groups link **552c**. Advanced routing dashboard **538** may comprise a call groups count **554a**, an auto attendant link **554b**, a call groups link **554c**, and a series completion link **554d**. Call center dashboard **540** may comprise a call centers count **556a**, a create call centers link **556b**, a manage call centers link **556c**, and a more call centers link **556d**. Reporting dashboard **542** may comprise a reports count **558a**, a reports link **558b**, a scheduled reports link **558c**, and a more reporting link **558d**. Most viewed dashboard **544** may comprise an articles count **560a**, a plurality of placeholder links **560a-560c**. Although FIG. 5 illustrates particular dashboards in a particular order, embodiments contemplate any number or combination of dashboards according to particular needs.

[0072] FIG. 6 illustrates exemplary method **600** of an account setup according to an embodiment. Method **600** proceeds by one or more activities, which although described in a particular order may be performed in one or more permutations, according to particular needs. Method **600** may comprise one or more account setup wizards **7A-7H**, according to an embodiment. In one embodiment, one or more account setup wizards **7A-7H** may comprise a fast and easy-to-use user

interface for setting up, for example, a phone system according to system administrator **110**. In addition, or as an alternative, embodiments contemplate a guided user interface **500** that permits a user to setup a telephone system and one or more features of the telephone system according to the current disclosure.

[0073] Method **600** begins at activity **602** where system administrator **110** displays locations wizard **706** (FIG. 7A) that permits the input of location information, such as, for example, location name **708a**, phone number **708b**, first name **708c**, and last name **708d**. After location data is entered, a user may select bring over numbers button **710** or save and continue button **712**. In response to a selection of bring over numbers button **710**, the method continues to activity **604**. In addition, or as an alternative, exit button **704**, may be selected at any of the one or more activities or wizards of method **600**, and, in response, system administrator **110** may save or discard all or some of the entered data, according to particular needs.

[0074] At activity **604**, system administrator **110** displays a bring over numbers wizard **714** (FIG. 7B) which displays the status of numbers that are ported from other communication services to system administrator **110**. According to an embodiment, bring over numbers wizard **714** displays information associated with porting a number such as an event date **716a**, subscriber **716b**, comments **716c**, completion **716d**, current step **716e**, and document view **716f**. Upload letter of authorization (LOA) button **718** permits a user to upload an LOA that may be required to port a number from one service to another. After a user has viewed or changed information on bring over numbers wizard **714**, a user may select back to create location button **720** and return to locations wizard **706**. At locations wizard **706**, a user may select save and continue button **712** and the method continues to activity **606**.

[0075] At activity **606**, system administrator **110** displays an E911 address wizard **722** (FIG. 7C) which permits a user to enter an address in address input boxes **724a-724k**, which associates each communication device **124** with a physical location. In one embodiment, the physical location may be used by emergency services to locate each communication device **124**. After a user has entered a physical location in address input boxes **724a-724k**, the user may select save and continue button **712**, and the method continues to activity **608**.

[0076] At activity **608**, system administrator **110** displays an update and verify location wizard **726** (FIG. 7D), which provides for adding the updated users and locations. In response to a selection of back button **728**, the method returns to activity **606**, and the user may make changes to previously entered information. In response to a selection of save and continue button **712**, the method continues to activity **610**.

[0077] At activity **610**, system administrator **110** displays add user wizard **730** (FIG. 7E) which permits a user to enter information for an individual user by selection of add individual user radio button **732** or import users by selection of import users radio button **734**. According to an embodiment, add individual user radio button **732** is pre-selected and add user wizard **730** displays input and checkboxes **736a-736j** that permit user input of information such as first name **736a**, last name **736b**, username **736c**, request to receive voicemail **736d**, email **736e**, location **736f**, phone number **736g**, extension **736h**, request to use E911 address as the same as entered location **736i**, and request to send a welcome email with login details to an entered user **736j**. In addition, or as an alternative, each user may be identified by, for example, a name, telephone number, address, username, email address or the like. One or more selection boxes enable one or more features to be associated with each user. In response to a selection of back button **728**, the method returns to activity **608**, and in response to selection of save and continue button **712**, the method continues to activity **620**.

[0078] At activity **612**, system administrator **110** displays add user wizard **730** (FIG. 7F) comprising a download template button **740** and an upload complete template **742**. In response to a selection of a download template button, method **600** continues to activity **614**, and system administrator **110** sends an import user template to one or more end user systems **120a-120n**.

Import user template may comprise any suitable format or file that permits a user to input or generate user information to be added for setup of an account. After one or more end user systems **120a-120n** inputs information into user information template, the user may select upload complete template button **742**. In response, the method continues to activity **616**, and one or more end user systems **120a-120n** uploads the user template to system administrator **110**. The method then continues to activity **618**.

[0079] At activity **618**, system administrator **110** receives the completed template, performs a validation check of the information contained in the user template, and generates a user template wizard **744** (FIG. 7G). In one embodiment, user template wizard **744** permits a user to edit information, view validation errors, cancel the upload, upload the template again after changing one or more fields of information, or complete the import of user information. In addition, or as an alternative, user template wizard **744** comprises a view error list selectable element **746**, user information fields **748**, cancel button **752**, upload button **754**, and complete import button **756**.

[0080] In response to a selection of a view error list selectable element **746**, system administrator **110** displays a list of errors detected by system administrator **110** in the user template. Errors may comprise, for example, inconsistent information, duplicate information, pre-assigned user information, or other like errors, according to particular embodiments. In addition, a user may directly edit the user information in user information fields **748** to correct information, which may be highlighted to indicate that an error is present in a particular field of information. Such information may include, for example, first name **750a**, last name **750b**, username **750c**, email address **750d**, location **750e**, and role **750f**. Role **750f** may indicate the position a user has within an enterprise or may indicate an access level for using customer management system **100**. Roles **750f** may include, for example, administrator, manager, and agent.

[0081] According to an embodiment, the user template module provides for adding many users at a single time by, for example, importing by a CSV file. According to this embodiment, a user downloads a file from system administrator **110** according to a template that is created, the user information is provided on the template, and the template is uploaded to system administrator **110**. After uploading, system administrator **110** provides a pre-import validation module, which, for example, parses the import file for errors, generates error codes, finds fields which are missing information or are invalid, and permits a user to upload a new version of the CSV file or correct the errors shown. This provides for adding one, ten, hundreds, or more of users or businesses in a single simplified process. According to an embodiment, the user template module indicates the number of users added by the import file and may also indicate the number of users that were not added because of, for example, one or more errors. A user is then provided the option of downloading individually or in bulk a file to correct the information, or correcting the information directly through the module.

[0082] After one or more end user systems **120a-120n** validates the information, cancel button **752**, upload button **754**, or complete import button **756** may be selected. In response to a selection of cancel button **752**, method **600** returns to add users wizard **730** or import users wizard **738**. In response to a selection of upload button **754**, the method returns to activity **616** and one or more end user systems **120a-120n** uploads the altered information in information fields **748** to system administrator **110**. In response, the method may return to activity **618** and system administrator **110** may validate the template again.

[0083] In response to selection of complete import button **756**, the method continues to activity **620** and system administrator **110** sets up user accounts for each of the users in information field **748**. System administrator **110** sets up user accounts by associating user information with a user account.

[0084] At activity **622**, system administrator **110** displays an add device wizard **758** (FIG. 7H). According to add device wizard **758**, one or more devices may be associated with one or more users or user accounts. For example, a telephone system is selected and information about the

system is input into the system. Additional devices may be added by selecting an appropriate button and other features may be added. In one embodiment, add device wizard **758** comprises system device radio button **760**, bring a device radio button **762**, import multiple devices radio button **764**, model selection box **766**, MAC address entry box **768**, assign button **770**, request email sent with authentication name and password box **772**, and skip step selectable element **774**.

[0085] When system device radio button **760** is selected, model selection box **766** may prepopulate with available models of communication devices **124** provided by customer management system **100** to one or more end user systems **120a-120n**. After an appropriate model is selected, MAC address of the device is entered in MAC address entry box **768**. After the model and MAC address are selected or entered, assign button **770** may be selected, and, in response, one or more end user systems **120a-120n** causes the method to continue to activity **624**, where system administrator **110** assigns the MAC address and device with a user of customer management system **100**. When bring a device radio button **762** is selected, model selection box **766** may provide a text entry box or prepopulate with communication devices **124** that are compatible with customer management system **100**. After an appropriate model is selected, MAC address of the device is entered in MAC address entry box **768**. After the model and MAC address are selected or entered, assign button **770** may be selected, and, in response, one or more end user systems **120a-120n** causes the method to continue to activity **626**, where system administrator **110** assigns the MAC address and device with a user of customer management system **100**.

[0086] When import multiple devices radio button **764** is selected, a template is downloaded to complete the necessary information, such as, for example, the MAC address, the device type and the user to assign each of the multiple devices to. Once completed, the template can be uploaded to system administrator **110**.

[0087] After one or more communication devices **124** are assigned to one or more end user systems **120a-120n** by system administrator **110**, request email sent with authentication name and password box **772** may be selected, where system administrator **110** generates an email to be sent to an email address associated with one or more user accounts setup that will provide authentication name and password information. In addition, or as an alternative, in some instances, a communication device **124** may not be desired to be associated with a user account. According to embodiments, in this case, skip step selectable element **774** may be selected and the method will continue to activity **626**, without assigning a MAC address and device with a user account.

[0088] Back button **728** may be selected to return to a previous activity, or save and continue button **712** may be selected to continue to activity **626**. At activity **626**, system administrator **110** displays a completion wizard **776** (FIG. 7I). According to completion wizard **776** of the setup wizard, an indication that the phone system was successfully set up, is displayed. Selection buttons at the bottom of wizard **776** permit may be selected to add more locations **782**, users **784**, or devices **786**. In addition, or as an alternative, one or more instructional videos may be played that demonstrate, for example, how to create call groups **780a**, create auto attendants **780b**, manage user call settings **780c**, and/or add an administrator **780d**.

[0089] According to an embodiment, completion wizard **776** may comprise links **778a-778d** for and movies for how-to videos **780a-780d** for creating call groups, creating auto attendants, managing user call settings, and adding an administrator, respectively. According to embodiments, completion wizard **776** provides access to adding more locations, users, or devices by add locations button **782**, add users button **784**, and add devices button **786**. After the completion of the account setup wizard of method **600** is completed, finished button **788** is selected, and the method ends.

[0090] Returning now to user interface **500** of FIG. 5, scores associated with dashboards **530-544** may be updated to reflect the added users, locations, devices, or functionalities. In addition, account overview **512**, call overview **516**, and activity overview **520** are updated to reflect the new information. From user interface **500**, selection of user top-level menu choice **504a** causes user interface **500** to generate user overview wizard **800** (FIG. 8A). As used in this disclosure, selection

of a button or link may be by customer management system **100** automatically monitoring a defined area of user interface **500**, such as a button, link, or selectable area, and in response to a cursor, click, or other action occurring within the defined area, automatically generating a response in an attached computer to cause one or more defined functions, such as displaying a wizard or other elements, as described within this disclosure.

[0091] FIG. **8A** illustrates user overview wizard **800** of user interface **500** according to an embodiment. In one embodiment, user overview wizard **800** permits a user to manage users, add users, manage administrators, and add administrators. Although particular elements are shown and described in association with overview wizard **800**, embodiments contemplate any one or more elements or features, according to particular needs. User overview wizard **800** comprises a dynamic area which displays text, buttons, text or number entry boxes, and/or other types of dynamic elements that are configurable to allow for the input, display, or configure communication devices **124** and/or customer management system **100**.

[0092] In one embodiment, user overview wizard **800** may comprise an overview **808**, which in turn comprises overview information **810**, help button **812**, menu tool **814**, and one or more feature overviews **816a-816b**. Feature overviews **816a-816b** comprise screenshots **818a-818b** and link buttons **820a-820d**, each of which relates to one or more features. For example, as shown in FIG. **8**, users overview **808** comprises feature overviews for users **816a** and administrators **816b**. According to embodiments, each of feature overviews **816a-816b** has one or more screenshots **818a-818b** which displays on user interface **500** examples or pictures of updated user overview wizard **800** for the one or more features.

[0093] In addition, or as an alternative, the feature overview for users **816a** comprises information **822a** regarding that feature, including “Import, add, & edit user info,” “select or record greetings,” and “call feature setup.” One or more link buttons **820a-820b** allows for the selection of a feature, which causes user overview wizard **800** to update the display to show a wizard associated with the selected feature. In addition, the feature overview for administrators **816b** comprises information **822b** regarding that feature, including “add and edit admin info,” “location assignments,” and “admins permissions.” One or more link buttons **820c-820d** allows for the selection of a feature, which causes user overview wizard **800** to update the display to show a wizard associated with the selected feature.

[0094] When manage **820a** is selected to manage users, user overview wizard **800** is updated to display a manage users wizard **830** (FIG. **8B**). In one embodiment, manage users wizard **830** permits the searching and selection of users associated with a communication account and adjusting the configurations and settings associated with the users. In addition, or as an alternative, manage users wizard **830** may comprise search bar **832** and list of users **834**. Search bar **832** permits entering a query to search for one or more users associated with a communication account. List of users **834** comprises information about each of the users associated with the account, such as, for example, name, username, an associated location, and an associated communication device **124**. Selection of one or more users permits editing the information or changing configurations and settings associated with the selected user.

[0095] FIG. **8C** illustrates manage users wizard **830** updated in response to selection of the user an exemplary user, i.e., Matthew Baker. In one embodiment, manager users wizard **830** displays a name of user **836**, back button **838**, configuration and settings subwizards **840a-840i**, expand buttons **842a-842i**, expand all button **844**, delete user button **846**, cancel button **848**, and save button **850**. Although manage users wizard **830** is described and illustrated with particular configuration and settings subwizards **840a-840i** and a particular layout, embodiments contemplate any suitable categories or subcategories of configuration and settings subwizards **840a-840i** arranged, according to particular needs. In addition, or as an alternative, each of expand buttons **842a-842i** may expand the configuration and settings subwizard **840a-840i** with which they are associated. For example, if user profile expand button **842a** is selected, user profile configuration

and settings subwizard **840a** expands to reveal the configuration and settings of the user profile that may be edited, as shown in FIG. **8D**. In addition, selection of expand all button **844** may expand all configuration and settings subwizards **840a-840i** to reveal all configuration and settings associated with each configuration and settings subwizard **840a-840i**.

[0096] For example, expanding the user profile configuration and settings subwizard **840a** may reveal editable text boxes or drop-down selection boxes for first name **852a**, last name **852b**, username **852c**, email **852d**, phone number **852e**, extension **852f**, forwarding number **852g**, location **852h**, time zone **852i**, PIN **852j**, street number **852k**, street direction **52l**, street name **852m**, street type **852n**, post street direction **852o**, apt/suite/floor indicator **852p**, apt/suite/floor number **852q**, city **852r**, state **852s**, zip code **852t**, and country **852u**. According to some embodiments, expanding the user profile configuration and settings subwizard **840a** may further reveal selection boxes for receiving voicemails by email **854a**, authorizing a user **854b**, and setting an E911 address the same as user location **854c**. According to some embodiments, selectable elements allow for setting licenses **856a**, devices **856b**, schedules **856c**, and greetings **856d**. Once correct information has been entered or changed, selection of save button **850** uploads the information to server **114**.

[0097] Once information has been entered or changed, a different configuration and settings subwizard **840a-840i** may be selected, by selecting the associated expand buttons **842a-842i** to reveal the configuration and settings associated with the respective configuration and settings subwizard **840a-840i**. According to some embodiments, configuration and settings associated with each configuration and settings subwizard **840a-840i** are revealed according to an accordion function, as described in more detail below. According to an embodiment, one or more wizards of customer management system **100** comprises an accordion function, which comprises a system and method for sectioning off particular information to permit a user to see only the most relevant or necessary information to provide for greater ease of use. According to an embodiment, an accordion function comprises sectioning off information depending on the associated feature, the profile setting, what the system determines is important to the user, such as providing a “bite-sized” field to provide for a not overwhelming interface for the user.

[0098] FIG. **9** illustrates an exemplary method **900** of an accordion function according to an embodiment. Method **900** proceeds by one or more activities, which although described in a particular order may be performed in one or more permutations, according to particular needs. Method **900** may comprise one or more account setup wizards **8E-8G**, according to an embodiment.

[0099] In one embodiment, the user interface system automatically minimizes the completed steps, so that the complex and long process of setting up or editing a functionality of customer management system **100** is divided into manageable parts by eliminating or hiding unused or unnecessary information. Instead of a user needing to scroll up and down the wizard to navigate the user interface, the system automatically hides unused information from the user, and presents only the information of the current step or a portion of the current step. According to some embodiments, the user interface hides portions of the user interface that do not pertain to that particular user. In this manner, system administrator **110** divides long tasks into small and manageable tasks, which guides a user through one or more setup or editing wizards or processes of customer management system **100**.

[0100] Method **900** begins at activity **902** by sorting a wizard into one or more subwizards, where each subwizard comprises one or more configuration settings. For example, and as illustrated in FIG. **8C**, wizard **830** is sorted according to subwizards **840a-840i**. Each subwizard **840a-840i** is, in turn, sorted according to one or more configuration settings in each subwizard, as will be explained in more detail below.

[0101] At activity **904**, system administrator **110** displays a subwizard or configuration setting in a collapsed state. For example, each subwizard **840a-840i** occupies a single line of text, and none of



the configuration settings available in each subwizard is visible. Although subwizards are illustrated as comprising no visible configuration settings in a collapsed state, embodiments contemplate some collapsed states as comprising one or more configuration settings, selectable elements, or text entry or selection boxes, according to particular needs.

[0102] At activity **906**, system administrator **110** monitors input for an expansion condition. For example, system administrator **110** may comprise a graphical user interface (GUI). According to a GUI embodiment, system administrator **110** may receive input through a mouse, touchscreen, cursor, or other input that comprises a visual representation of sub wizards **840a-840i** or configuration settings. Interface may detect a selection or movement inside an area of the interface, which indicates an expansion condition. Expansion conditions may comprise, for example, selecting an expansion button **842a**, turning a switch on, entering text in a predetermined text entry box, selecting an item from a drop down selection box, clicking a button, or other types of input.

[0103] At activity **908**, when an expansion condition is detected, system administrator **110** automatically expands a subwizard or configuration setting from a collapsed state into an expanded state that occupies a greater area of a display than the collapsed state. As illustrated in FIG. **8D**, user profile subwizard **840a** expands from a collapsed state in FIG. **8C**. One or more text entry boxes associated with user profile subwizard **840a** were not visible in the collapsed state, and other subwizards **840b-840i** move to a lower portion of the display.

[0104] At activity **910**, system administrator **110** monitors input for a collapse condition associated with a subwizard or a configuration setting. Collapse conditions may comprise a similar detected input as in expansion condition. A collapse condition may comprise a selection or movement inside an area of the interface, which indicates a collapse condition is desired to occur. Collapse conditions may comprise, for example, selecting an expansion button **842a** for a second time or selecting an expansion button **842a** when the associated subwizard is already in an expanded state, turning a switch off, entering text in a predetermined text entry box, selecting an item from a drop down selection box, clicking a button, or other types of input. According to some embodiments, a collapse condition for one subwizard may be the same as an expansion condition for another subwizard. For example, when user profile subwizard **840a** is collapsed, mobility subwizard **840b** automatically expands in response to the same input.

[0105] At activity **912**, system administrator **110** automatically collapses a subwizard or configuration setting from an expanded state into a collapsed state that occupies a lesser area of a display than the expanded state. As illustrated in FIG. **8E**, user profile subwizard **840** now occupies an area of the display in a collapsed state less than the area of the display in an expanded state.

[0106] To further illustrate the accordion function, an example is now given. In the following example, FIG. **8E** illustrates manage users wizard **830** updated in response to selection of the forwarding configuration and settings subwizard **840c**. Configuration settings of the forwarding configuration and settings subwizard **840c** provides for call forwarding functionalities to be toggled on and off based on which particular phone number is illustrated on the wizard. For example, configuration settings of the forwarding configuration and settings subwizard **840c** may comprise call forward always **858a**, call forward selective **858b**, call forward when busy **858c**, call forward when unanswered **858d**, call forward when unreachable **858e**, and group forwarding **858f**. Each of the configuration settings **858a-858f** may be associated with a switch **860a-860f** and a phone number **862a-862f**. Switch **860a-860f** permits each of the configuration settings **858a-858f** associated with the switch to be toggled between an “on” state and an “off” state based on the position of the switch. Phone numbers **862a-862f** associated with each of the configuration settings **858a-858f** permits entry one or more phone numbers to receive forwarded calls when switch **860a-860f** is toggled to an “on” state.

[0107] According to embodiments, the accordion function provides for the second (or further) step not being processed or displayed until a first step is completed, which then turns on or activates the second step. For example, where a first step comprises turning on or off a button, once a user turns

on or off the button, system administrator **110** guides the user to the second step. In other words, the entire process is not presented at once, but, instead, the accordion function allocates and provides easy access to the subsections. According to some embodiments, the accordion function logically groups wizard functions and features together based on, for example, user input. Based on this, system administrator **110** provides for an easy, linear access to use any one or more of the functionalities or features of the one or more wizards.

[0108] FIG. **8F** illustrates manage users wizard **830** updated in response to selection of the call identification configuration and settings subwizard **840h**. According to an embodiment, configuration settings of the identification configuration and settings subwizard **840h** provides call identification functionalities to be toggled on and off a first item of the call identification wizard, such as, for example, a feature that has not been purchased.

[0109] According to an embodiment, call identification configuration and settings subwizard **840h** is associated with the accordion function, turning on the first item of call identification subwizard **840h** comprises a first step, and the further steps are provided for by the accordion function. For example, to add a number to call identification subwizard **840h**, the plus sign is selected. When the plus sign is selected, a drop-down guide is presented by system administrator **110** that guides a user through the process, such as, filing in information, saving the information, and the process completes automatically, without a user scrolling or navigating to further wizards. Therefore, even though the functionality is complex, system administrator **110** provides only the information on a need-to-know basis, which provides an intuitive system that is easy to use, even for the most complex functionalities of customer management system **100**. According to further embodiments, the accordion function eliminates many steps from a multi-step processes such as, for example, reducing the number of steps in a two, three, four, or more step process in order to provide an easier to use system. According to some embodiments, some wizards, functions, or features are provided for as a one-step process such as Caller ID functionality.

[0110] Returning to FIG. **8A**, add **820b** may be selected to add users. In response to selection of add **820b**, user overview wizard **800** is updated to display add users wizard **730** or import users wizard **738** (FIG. **7E**). The initial setup of each of the one or more wizards or functionalities is substantially similar to the look and feel of the editing process of the wizard or functionalities, such as providing a substantially similar editing a wizard functionality as when setting up the wizard or functionality. Therefore, once a user has setup the user interface system, the process to edit any of the features or information would be intuitive and familiar. The user would not need to relearn any of the process from setup to editing.

[0111] As discussed above, add users wizard **730** of FIG. **7E** permits the adding of new users and import users wizard **738** permits importing users to customer management system **100**. Data for adding new users or importing of users may be stored in configuration data **204** of user interface **500**. In response to selection of manage **820c** to manage administrators, user overview wizard **800** is updated to display a manage administrators wizard. Manage administrators wizard permits adding, deleting, or changing configuration settings of one or more users with administrator status.

[0112] In response to selection of add **820d**, user overview wizard **800** is updated to display an add administrators wizard **872** (FIG. **8G**). Add administrators wizard **872** permits adding one or more administrators to a single location, multiple locations, and assign various rights and permissions to each of the administrators. Add administrators wizard **872** may comprise one or more text or selection boxes for entering, for example, administrator first name **874a**, administrator last name **874b**, username **874c**, email **874d**, location **874e**, and PIN **874f**. Add administrators wizard **872** may comprise one or more check boxes for associating an administrator with a location **876a** and associating an administrator with privileges to assign other users as administrators **876b**. Once information is entered, a user may select finish button **878** to store information in database **114**.

[0113] FIG. **10A** illustrates a locations overview wizard **1000** of user interface **500** according to an embodiment. Locations overview wizard **1000** permits a user to manage locations, add locations,

assign users and administrators to locations, and set up location-level features. In one embodiment, and in response to selection of locations top level menu choice **504b** or locations dashboard **532** of user interface **500**, locations overview wizard **1000** may display locations overview **1004**, and locations feature overview **1006**. Locations feature overview **1006** comprises screenshots **1008** and link buttons **1010a-1010b**, each of which relates to one or more features. For example, as shown in FIG. **10A**, locations overview **1004** comprises a locations feature overview **1006** comprising one or more screenshots **1008** which displays on interface **500** examples or pictures of locations overview wizard **1000** for the one or more features. Locations feature overview **1006** provides information **1012** including “create and manage your location info,” “assign users and admins,” and “set up location-level features.” One or more link buttons **1010a-1010b** allows for the selection of a feature, which causes locations overview wizard **1000** to update the display to show a wizard associated with the selected feature.

[0114] In response to selection of manage **1010a** to manage locations, locations overview wizard **1000** is updated to display a manage locations wizard. Manage locations wizard permits the searching and selection of locations associated with a communication account and adjusting the configurations and settings associated with the locations. In response to selection of create **1010b** to create locations, locations overview wizard **1000** is updated to display a create locations wizard **1014** (FIG. **10B**). Create locations wizard **1014** permits creation and configuration of locations associated with a communication account.

[0115] FIG. **10B** illustrates create locations wizard **1014** of locations overview wizard **1000** comprising an accordion function. Create locations wizard **1014** may comprise a three action process for creating locations associated with communication devices **124**. According to an embodiment, create locations **1014** comprises a series of actions that are numbered off and, for example, provide for expanding and/or collapsing the one or more actions based on particular user needs. In this manner, one or more actions are presented as a single action, with various portions of the action sectioned off. According to a particular embodiment, the location information is entered into create locations wizard **1014**, in a particular section or subwizard. Once information is entered, the next section expands and the information entered in the previous section may be collapsed or reduced. The process continues as information is entered into create locations wizard **1014**, further sections expand and previous sections may collapse to facilitate the input of information into the system. In this manner, complex functionalities are divided into manageable portions according to the accordion function, which displays information only as needed at a particular time and avoiding the need to scroll up or down. The accordion function therefore provides for information to be presented, while still providing ease of access to all functions in an easy to use interface.

[0116] In addition, or as an alternative, create locations wizard **1014** may comprise a checklist structure of a user interface system. According to an embodiment the checklist structure checks off steps of a create locations user interface as a user completes the steps. The checklist structure permits a user to return to any previous steps and correct or change information by selecting the step from the list of steps. In one embodiment, a checkmark may be placed next each of the one or more steps as that step is completed.

[0117] Create locations wizard **1014** displays location information subwizard **1016**, administrators subwizard **1018**, and location features subwizard **1020** according to an accordion function. The accordion function permits create locations wizard **1014** to display only the features that are being configured by a user at a single time. In this way, the accordion function creates a linear path of actions to pass through one or more wizards. In accordance with an accordion function, the location information subwizard **1016** to be completed first by a user may be expanded automatically by interface **500** upon initiation of create locations wizard **1014**. In addition, or as an alternative, interface **500** may monitor the cursor of a user or wait for a selection by the user before expanding one or more subwizards.

[0118] In one embodiment, location information subwizard **1016** may comprise text entry or drop

down selection boxes for entering information for location name **1022a**, description **1022b**, location outgoing number **1022c**, location caller ID **1022d**, street number **1022e**, street direction **1022f**, street name **1022g**, street type **1022h**, post street direction **1022i**, apt/suite/floor **1022j**, apt/suite/floor number **1022k**, city **1022l**, state **1022m**, zip code **1022n**, and country **1022o**. In addition, or as an alternative, one or more indicators **1024a-1024c** may comprise guidance to a user as to an order or status of each action performed according to the accordion function. In one embodiment, when location information subwizard **1016** is expanded, indicator **1024a** comprises a number **1** enclosed in a circle, indicating that location information sub wizard **1014** should be completed first. In another embodiment, indicators **1024b-1024c** may comprise a shaded or blurred numbers **2** and **3**, respectively, that indicate that actions associated with these indicators **1024b-1024c** are to be completed second and third after the action associated with indicator **1024a**.

[0119] After information is entered into text entry or drop down selection boxes **1022a-1022n**, accordion function may collapse location information subwizard **1016** and expand administrators subwizard **1018**. In addition, selection of save and continue button **712** causes accordion function to collapse location information subwizard **1016** and expand administrators subwizard **1018** or another suitable wizard or subwizard, according to particular needs.

[0120] FIG. **10C** illustrates administrators subwizard **1018** of locations overview wizard **1000** expanded according to the accordion function. As illustrated, location information subwizard **1016** is in a collapsed state and administrators wizard **1018** is in an expanded state. Additionally, indicator **1024a** has changed into a checked box, indicating that the actions associated with location information subwizard **1016** is completed, and indicator **1024b** has changed into a highlighted number **2**, indicating that the actions associated with administrators subwizard **1018** are ready to be performed. In one embodiment, administrators subwizard **1018** permits searching, editing, and configuring the location information associated with one or more administrators. Administrators may be listed in a search box **1026** and selection of an administrator name may permit editing or deleting the selected administrator.

[0121] After actions associated with administrators subwizard **1018** are completed, accordion function may collapse administrators subwizard **1018** and expand location features subwizard **1020**. In addition, or as an alternative, selection of save and continue button **712** causes accordion function to collapse administrators subwizard **1018** and expand location features subwizard **1020** or another suitable wizard or subwizard, according to particular needs.

[0122] FIG. **10D** illustrates location features subwizard **1020** locations overview wizard **1000** expanded according to the accordion function. In one embodiment, location features subwizard **1020** may permit locations of the user interface to be easily turned on and off. According to an embodiment, a list of the location features is presented to the user. Boxes next to the location features indicate whether the locations is on or off. The on or off button may be toggled, such that the location from an on status to an off status maybe selected. As illustrated, location features subwizard **1016** and administrators wizard **1018** are in a collapsed state and location features subwizard **1020** is expanded. In addition, indicator **1024b** has changed into a checked box, indicating that the actions associated with administrators subwizard **1018** are completed, and indicator **1024c** has changed into a highlighted number **3**, indicating that the actions associated with location features subwizard **1020** are ready to be performed.

[0123] According to an embodiments, location features subwizard **1020** comprises an on and off functionality. Configuration settings of location features subwizard **1020** provides for location configuration features to be toggled on and off. In a non-limiting example, location configuration settings of location features subwizard **1020** may comprise call park **1030a**, common phone list **1026b**, CommPilot Call Manager **1026c**, conferencing bridges **1026d**, custom group ring back **1026e**, extension dialing **1026f**, group paging **1026g**, group pick-up **1026h**, instant group calls **1026i**, music on hold **1026j**, Nextiva Anywhere **1026k**, outgoing calling plan **1026l**, and voicemail **1026m**. Each of the configuration settings **1026a-1026m** may be associated with a switch **1028a-**

**1028m** and a help button **1030a-1030m**. In one embodiment, switch **1028a-1028m** permits each of the configuration settings **1026a-1026m** associated with the switch to be toggled between an “on” state and an “off” state based on the position of the switch. In another embodiment, help buttons **1030a-1030m** associated with each of the configuration settings **1026a-1026m** permits a functional description functionality.

[0124] In association with the on and off functionality is a functional description functionality that provides for a detailed description of an associated function when a graphical element, such as help button **1030a-1030m**, is selected. Although the functional description functionality is described in connection with an on and off functionality, the functional description functionality may provide a detailed description in connection with any feature, wizard, or functionality of user interface **500**.

[0125] FIG. **11A** illustrates an advanced routing wizard **1100** of user interface **500** according to an embodiment. In one embodiment, and in response to selection of advanced routing top level menu choice **504c** or advanced routing dashboard **538** of user interface **500**, advanced routing wizard **1100** may display advanced routing overview **1102** and call groups feature **1104**. In one embodiment, advanced routing wizard **1100** permits a user to manage advanced routing features, including configuring call groups, auto-attendants, and series completion. In one embodiment, advanced routing overview **1102** comprises a call groups feature **1104** comprising one or more screenshots **1106** which displays on interface **500** examples or pictures of the updated advanced routing wizard **1100** for call groups feature **1104**. In addition, or as an alternative, call groups feature **1104** gives information **1108** including about the call groups feature **1104** including “create and manage call groups,” “assign users,” and “setup call group-specific features.”

[0126] In response to selection of manage **1110a** to manage call groups, advanced routing wizard **1100** is updated to display a manage call groups wizard **1112** (FIG. **11B**). In one embodiment, manage call groups wizard **1112** permits configuration of a call group profile. A call group may comprise permitting a user to dial an extension or number from a first communication device **124** and causing one or more selected communication devices **124** to receive a communication from the first communication device **124**. Configuration of the call group according to manage call groups wizard **1112** may comprise one or more text entry or selection boxes for call group name **1114a**, caller identification (ID) **1114b**, phone number **1114c**, extension **112d**, location **1114e**, call distribution policy **1114f**, available users **1114g**, and/or selected users **1114h**.

[0127] FIG. **12** illustrates a device wizard **1200** of user interface **500** according to an embodiment. In one embodiment, device wizard **1200** permits a user to manage device features, including adding and viewing communication devices **124** to network **150** and configuring locations or users associated with communication devices **124**. In response to selection of devices top level menu choice **504d** or devices dashboard **534**, interface **500** initiates display wizard **1200**, which causes device wizard **1200** to display device overview **1202** and devices feature **1204**. In an embodiment, device overview **1202** may comprise information regarding the content of devices wizard **1200**. Devices feature **1204** may comprise screenshots **1208** and link buttons **1210a-1210b**, each of which relates to one or more features associated with devices wizard **1200**.

[0128] In one embodiment, devices feature **1204** comprises one or more screenshots **1208** which displays on interface **500** examples or pictures of the updated device wizard **1200**. Devices feature **1204** provides information **1212** about devices feature **1204** including “add and manage devices,” “assign devices to users,” and “view by type and MAC address.” In response to selection of manage **1210a** to manage devices, device wizard **1200** is updated to display a manage devices wizard. In response to selection of add **1210b** to add devices, device wizard **1200** is updated to display a add devices wizard **758**, as discussed previously in connection with FIG. **7H**.

[0129] FIG. **13A** illustrates call center wizard **1300** of user interface **500** according to an embodiment. In one embodiment, call center wizard **1300** permits a user to manage call center features, including adding and setting up call centers, managing agents and supervisors, establish and modify routing, and other features as described below. In response to selection of call center

top level menu choice **504e** or call center dashboard **540**, call center wizard **1300** causes task interface **804** to display call center overview **1302** and call center feature **1304**. In one embodiment, call center overview **1302** may comprise information regarding the content of call center wizard **1300**. In addition, call center feature **1304** may comprise screenshots **1308** and link buttons **1310a-1310b**, each of which relates to one or more features associated with call center wizard **1300**.

[0130] In one embodiment, call center feature **1304** comprises one or more screenshots **1308** which may display on interface **500** examples or pictures of the updated call center wizard **1300**, such as, examples of manage call centers or create call centers wizards. Call center feature **1304** provides information **1312** about call center feature **1304** including “call center profile,” “routing,” “agents and supervisors,” “queue,” “announcements,” “reporting,” and “advanced features.” In response to selection of manage **1310a** to manage call centers, call center wizard **1300** is updated to display a manage call centers wizard. In response to selection of create **1310b** to create call centers, call center wizard **1300** is updated to display a create call centers wizard **1314**, as discussed in connection with FIGS. **13B-1** and **13B-2**.

[0131] FIGS. **13B-1** and **13B-2** illustrate create call center wizard **1314** according to an accordion function, as described above. Create call center wizard **1314** comprises call center profile subwizard **1316**, routing subwizard **1318**, agents subwizard **1320**, and supervisor subwizard **1322** according to an accordion function. The accordion function permits call center wizard **1300** to display only the features that are being configured by a user at a single time. In this way, the user's exposure is limited to only the configurations or settings that a user needs to do in the current subwizard, and is prevented from adjusting further configuration or settings in other subwizards until the current subwizard is completed. In addition, or as an alternative, each of the subwizards may be associated with an indicator **1022a-1022d** which may be highlighted or shaded as actions are completed or are waiting to be completed discussed above.

[0132] As illustrated, create call center profile subwizard **1314** is in an expanded state and routing subwizard **1318**, agents subwizard **1320**, and supervisor subwizard **1322** are in a collapsed state. In one embodiment, create call center profile subwizard **1314** may comprise text entry or selection boxes for associating information with a call center profile, including, name **1324a**, caller ID **1324b**, phone number **1324c**, extension **1324d**, location **1324e**, call distribution policy **1324f**, queue length **1324g**, agent state **1324h**, wait time **1324i**, maximum ACD wrap-up time **1324j**, ring pattern **1324k**, and forced delivered call ring pattern **1324l**. Create call center profile subwizard **1314** may comprise radio selection boxes to choose between routing calls by priority **1326a** or by agent skill-level **1326b**; associating privacy on redirected calls by no privacy **1330a**, privacy for external calls **1330b**, or privacy for all calls **1330c**; sending call being forwarded response on redirected calls never **1332a**, only on internal calls **1332b**, or for all calls **1332c**; and associating caller line ID for redirected calls with originating ID **1334a**, external ID **1334b**, or all **1334c**. Check boxes permit the selection of features to be associated with the call center profile such as setting an agent state after a user-defined number of calls **1328a**, answering a call automatically after waiting a user-defined number of seconds **1328b**, setting a maximum ACD wrap-up time **1324j**, and enabling directory privacy **1328c**. Although call center profile subwizard **1316** is indicated with particular features and in a particular configuration, embodiments contemplate any suitable combination or configuration of features, according to particular needs.

[0133] In addition, or as an alternative, after information is entered in call center profile subwizard **1314** or save and go to advanced settings button **1336** are selected, information is stored in database **114** and each of the subwizards **1314-1322** may collapse and expand according to the accordion function as discussed above to permit a user to complete the further actions associated with creating a call center.

[0134] FIG. **13C** illustrates manage call center agents wizard **1340** according to an embodiment. Manage call center agents wizard **1340** may be displayed in response to selection of manage call center agents. In one embodiment, manage call center agents wizard **1340** permits a user to assign

and view, edit, and delete assignments of one or more users to one or more call centers. In addition, or as an alternative, manage call centers wizard **1340** may comprise a list **1338** of names **1342a**, phone number **1342b**, and call center assignments **1342c** of one or more agents associated with a call center. Call center assignments **1342c** may comprise, for example, support, sale, fax, general, and/or general support. Call center assignments **1342c** are readily viewable from list **1338** which permits a quicker determination of call center assignments **1342c** associated with each of one or more agents. According to an embodiment, a call center agent is one or more end user systems **120a-120n** that is associated with a call center assignment and thereby is configured to be associated with one or more configuration settings of a call center, such as being assigned to one or more call center queues.

[0135] FIG. **14A** illustrates a settings wizard **1400** of user interface **500** according to an embodiment. In one embodiment, settings wizard **1400** permits one or more end user systems **120a-120n** to create and manage schedules for one or more users, an entire company, or for specific locations. Settings wizard **1400** may also permit grouping one or more end user systems **120a-120n**, call groups, or auto-attendants for reporting purposes by creating and managing reporting groups. A reporting group may be, for example, one or more users that are organized differently then, for specific locations. For example, if one or more users are grouped together, such as sales in Phoenix and Los Angeles, a report may be run for this group, without having to tie this group to a specific locations.

[0136] In response to selection of settings top level menu choice **504g** or settings dashboard **536**, settings wizard **1400** displays settings overview wizard **1402** and schedules feature **1404**. In one embodiment, settings overview **1402** may comprise information regarding the content of settings wizard **1400**. In addition, or as an alternative, schedules feature **1404** may comprise screenshots **1408** and a link button **1410**, which relates to a schedules feature **1404** associated with settings wizard **1400**.

[0137] In one embodiment, schedules feature **1404** comprises one or more screenshots **1408** which may display on user interface **500** examples or pictures of the updated settings wizard **1404**, such as, examples of schedules wizard and holidays and closures wizard. Schedules feature **1404** gives information **1412** about schedules feature **1404** including “create new schedules,” “set holiday hours,” and “manage all schedules.” Link button **1410** allows for the selection of a view schedules feature **1404** which causes settings wizard **1400** to update the display to show a wizard associated with the selected feature **1404**.

[0138] FIG. **14B** illustrates a schedules wizard **1414** of user interface **500** according to an embodiment. In one embodiment, schedules wizard **1414** permits a user to associate time zones, schedules, breaks, and the like with one or more accounts of the system. Furthermore, a user is permitted to select one or more times when a call center is open or closed, and set time periods for one or more breaks when call center is open but not accepting calls.

[0139] Schedules wizard **1414** may comprise a schedule organized by, for example, one or more days of a week **1416a-1416g**. Each of the days **1416a-1416g** may be associated with a time period **1418a-1418g** during which time the associated call center is open or closed. Time period **1418a-1418g** may be adjusted by sliders **1420a-1420g** and closed checkboxes **1426a-1426g**. To indicate that a call center is open, a user checks or unchecks boxes **1426a-1426g**. According to an embodiment, if the box is checked, schedules wizard **1414** receives an indication that the call center is closed on the associated day **1416a-1416g** and associated slider **1420a-1420g** is dimmed, such as Sunday slider **1420g**. To adjust the time period for a day that the call center is open, a user may slide a first dial **1422a-1422f** along the slider to a point that indicates an opening time and a second dial **1424a-1424f** along the slider to a point that indicates the closing time. Embodiments contemplate adding one or more additional sliders or checkboxes to indicate break periods or other time restraints. A drop down selection box **1428** allows a user to change the time zone associated with the call center schedule.

[0140] FIG. **14C** illustrates holidays and closures wizard **1430** may comprise a calendar that permits a user to select one or more times and dates that the call center will be closed or that a special message or greeting will be played to callers to call center. According to some embodiments, the user may set a special time for a date during which the call centers hours will differ from the schedule set in schedules wizard **1414**.

[0141] Holidays and closures wizard **1430** may comprise calendar picker tool **1432**, holiday hours viewer **1434**, and closures viewer **1436**. Calendar picker tool **1432** comprises a month selector **1438**, year selector **1440**, and day selector **1442**. A user may select according to the month selector **1438**, year selector **1440**, and day selector **1442** an date for a holiday or closure. According to some embodiments, calendar picker tool **1432** comprises a calendar that permits a user to scroll through days, years, and months to select an appropriate day for a holiday or closure.

[0142] In addition, or as an alternative, calendar picker tool **1432** permits a user to choose a starting date **1444** and an ending date **1446** for a holiday or closure. A slider bar **1448** permits a user to adjust by one or more dials **1450a-1450b** a start time and end time, as described above in connection with sliders **1420a-1420g**. Check boxes **1452** and **1454** permit a user to select whether the call center is closed **1452** on the date specified, and whether the holiday or closure repeats **1454** at a specified schedule. The time period for the repeating of the schedule may be selected by selection box **1456** and may be selected as any suitable time period, such as, yearly, monthly, weekly, daily, or the like. After a holiday or closure is selected by calendar picker tool **1432**, holiday hours viewer **1434** and closures viewer **1436** display the holiday hours and days of closure, respectively, that were selected by calendar picker tool **1432**.

[0143] FIG. **15A** illustrates my accounts wizard **1500** of user interface **500** according to an embodiment. In one embodiment, my accounts wizard **1500** permits one or more end user systems **120a-120n** to update payment details, view call history and invoices, and assign licenses. In response to selection of my accounts top level menu choice **504h**, my accounts wizard **1500** displays my accounts overview wizard **1502** and billing feature **1504**. My accounts overview **1502** may comprise information regarding the content of my accounts wizard **1500**. Billing feature **1504** may comprise screenshots **1508** and a link button **1510**, which relates to a billing feature **1504** associated with my accounts wizard **1500**.

[0144] In one embodiment, billing feature **1504** comprises one or more screenshots **1508** which may display on interface **500** examples or pictures of my accounts wizard **1500**, such as, for example a billing wizard, a call history wizard, a licensing wizard, a lines and phone wizard, and a numbers wizard. Billing feature **1504** provides information **1512** about billing feature **1504** including “pay your bill,” “see current usage,” and “update payment details.” Link button **1510** allows for the selection of a billing feature **1504** which causes task interface **804** to update the display to show a wizard associated with the selected feature **1504**.

[0145] FIG. **15B** illustrates a billing summary wizard **1514** of user interface **500** according to an embodiment. In one embodiment, billing summary wizard **1514** permits a user to update credit card information, view invoices, pay bills, and the like. Information presented to the user may include the number of lines in use **1516a**, numbers transferred **1516b**, and devices in use **1516c**. A billing summary list **1518** may provide call type **1520a**, minutes of usage **1520b**, credit usage **1520c**, and a detailed view of charges **1520d**. Further information provided by billing summary wizard **1514** includes viewing history and invoice details, totals of credit usage, monthly charges, and current bill totals. According to some embodiments, billing summary wizard provides a pay button **1522** that permits a user to pay a current invoice. A user may edit the payment information in the payment details summary **1524** provided.

[0146] FIG. **16A** illustrates a user portal **1600** of interface **500** according to an embodiment. In one embodiment, user portal **1600** provides an interface for a user that does not have administrator status. Each of the one or more end user systems **120a-120n** that does not have an administrator status may have a different user portal **1600** that provides for logging into and managing a user



account, such as, viewing and changing configurations and settings associated with the non-administrator account.

[0147] According to an embodiment, one or more end user systems **120a-120n** are permitted to view only the functionalities that are available to them. For example, based on the settings selected by an administrator, one or more features may be shown or hidden from the non-administrative user. User portal **1600** may comprise user summary **1602**, active features summary **1604**, reports summary **1606**, and call history **1608**. User summary **1602** may comprise user name **1610a**, assigned phone number **1610b**, extension **1610c**, voicemail indicator **1610d**, link to view directory **1610e**, missed calls **1610f-1610h**, view all missed calls link **1610i**, and change passcode link **1610j**.

[0148] Active features summary **1604** may comprise a list **1612** of currently active features **1614a-1614f**. Selection of one of the currently active features **1614a-1614f** permits a user to edit one or more configuration settings associated with the active features **1614a-1614f**. Additionally, selection of the all features button **1620** permits a user to view and edit all features **1616** available to the user by opening the user features wizard **1640**. User features wizard **1640** will be discussed in more detail in connection with FIG. **16B**.

[0149] Reports summary **1606** of user portal **1600** may comprise call statistics for a predefined period and charts that represent the selected statistics. According to an embodiment, reports summary **1606** comprises drop down box **1622** which permits a user to select a time period over which statistics **1624** and charts **1626** will display data relating to a user's calls. For example, the current selection for drop down box **1622** is the time period "today," and statistics **1624** shows that the user has a total of 26 calls today, of which 20 were incoming calls, 4 were outgoing calls, and 2 were abandoned calls. Additionally, a user may elect view reports button **1628** to launch a view reports wizard, which provides for additional reports associated with the user's call data.

[0150] Call history **1608** may comprise a list **1630** of calls made to and from the user account. Call history list **1630** may comprise the type of call **1632a** (such as whether the call was incoming, outgoing, or abandoned), phone number **1632b**, caller ID **1632c**, time of call **1632d**, date of call **1632e**, and duration of call **1632f**. The list may be sorted according to a time period or by call type by selecting an appropriate choice in time period selection box **1634** or call type selection box **1636**. According to some embodiments, a user may launch the call history wizard to a larger list of the call history and edit or modify the call history by selecting view call history button **1638**.

[0151] FIG. **16B** illustrates a user features wizard **1640** according to an embodiment. In response to selection all features **1616**, user portal **1600** updates to display user features wizard **1640**. User features wizard **1640** may permit a user to select, modify, and turn on and off various features associated with the user account. According to an embodiment, the configurations and settings may be grouped into one or more subwizards that are expanded or collapsed according to an accordion function.

[0152] In one embodiment, user features wizard **1640** may comprise mobility subwizard **1642**, forwarding subwizard **1644**, monitoring subwizard **1646**, conferencing subwizard **1648**, and notification and messaging subwizard **1650**. As illustrated forwarding subwizard **1644** is expanded and comprises features **1652a-1652f** that may be toggled on and off by switches **1654a-1654f** and edited by edit button **1658a-1658f**. Each of the features **1652a-1652f** may be associated with a phone number **1656a-1656e** or other setting.

[0153] In response to selection of call forward always feature **1652a**, user portal **1600** expands according to the accordion function and permits a user to edit the associated phone number by a phone number edit box **1660**. Changes to the phone number may be saved by selection of save button **1662**. Embodiments contemplate the editing or modifying of other settings associated with each of the features **1652a-1652f** according to particular needs.

[0154] As can be seen from the above disclosure, the clean structure of user interface **500** and the accordion function permits an interface to be equally useful on any sized device with any type of input, such as a laptop, tablet, smartphone, or the like. Similarly, the product has sufficient design

that everyone in an organization may be able to use the interface, not simply a highly-trained technical user. Among other things, user interface **500** eliminates and reduces the number of calls that users will have to make into a help desk. In addition, embodiments provide for complex functionalities of user interface **500** to be greatly simplified according to current disclosure. For example, time to accomplish a task is greatly reduced and the number of steps are greatly reduced, that is, features now take less clicks and less time.

[0155] As an example only and not by way of limitation, if a first user is setting up a location according to customer management system **100** and wants to assign an administrator to the location but the administrator is not in the list of current administrators, prior art interfaces require abandoning the process, opening an administrator creation process, setting up a new administrator, and returning to the location setup. However, according to the present disclosure, a user may simply add an administrator in the setting up location process, greatly reducing the steps and time needed to set up the location.

[0156] By way of further example, TABLE 1 illustrates the time savings using the set up process of the current disclosure compared with prior art set up processes.

TABLE-US-00001 TABLE 1 Method # of Clicks Total Time Time saved The Old Way 124 165 minutes The Current Disclosure 64 85 minutes 80 minutes

[0157] As shown above, user interface **500** of the current disclosure greatly reduces the number of clicks and amount of time to setup and/or use customer management system **100** and user interface **500**. For example, and as shown above, prior art required, for example, 124 clicks, to accomplish an exemplary task, while the current disclosure requires only 64 clicks. Similarly, prior art required an additional one hour and twenty minutes of productivity time in performing the same function.

[0158] Additional evidence of the time and amount of clicks savings can be seen in TABLE 2.

Save Time and Steps

TABLE-US-00002 TABLE 2 Old New Time system portal Difference saved Setting up busy lamp field (BLF) 20 6 14 20 mins. Setting up shared call 21 8 13 15 mins. appearance (SCA) Creating a call/hunt group 11 4 7 10 mins. Creating an auto attendant 10 4 6 10 mins. Creating a schedule 9 4 5 7 mins. Setting up call forwarding, always 9 5 4 3 mins. Setting up call forwarding, 9 6 3 3 mins. not reachable Adding a device to the account 6 4 2 3 mins. Adding an administrator NA 4 — — Making a payment 3 5 -2

[0159] As shown above, the current disclosure “new portal” saves time and steps for every process or action.

[0160] Reference in the foregoing specification to “one embodiment”, “an embodiment”, or “some embodiments” means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the invention. The appearances of the phrase “in one embodiment” in various places in the specification are not necessarily all referring to the same embodiment.

[0161] While the exemplary embodiments have been shown and described, it will be understood that various changes and modifications to the foregoing embodiments may become apparent to those skilled in the art without departing from the spirit and scope of the present invention.

## Claims

1. A system for account setup, comprising: a computer comprising a processor and memory, the computer coupled with a database and configured to: display a locations wizard configured to permit an input of location information; display a bring over number wizard configured to displays a status of numbers that are ported from other communication services to a system administrator; display an E911 address wizard configured to permit a user to enter an address in address input boxes; display an update and verify location wizard configured for adding updated users and locations; display an add user wizard configured to permit a user to enter information for an

individual user by selection of add individual user radio button or import users by selection of import users radio button; display the add user wizard comprising a download template button and an upload complete template; send an import user template to one or more end user systems; upload a user template from one or more end user systems to the system administrator; receive the user template, perform a validation check and generate a user template wizard; set up user accounts by associating user information with one or more user accounts; display an add device wizard; assign a MAC address and a device with a user of a customer management system; and display a completion wizard.

**2.** The system of claim 1, wherein the bring over number wizard is further configured to permit a letter of authorization required to port a number from one service to another.

**3.** The system of claim 1, wherein the E911 address wizard is further configured to associate each communication device with a physical location.

**4.** The system of claim 1, wherein the user template wizard is configured to perform one or more of: edit information, view validation errors, cancel an upload, upload the user template again after changing one or more fields of information, or complete an import of user information.

**5.** The system of claim 1, wherein the user template wizard is configured to display a list of errors.

**6.** The system of claim 1, wherein the user template wizard is configured to highlight an error present in a particular field of information.

**7.** The system of claim 1, wherein the add device wizard is prepopulated with available models of communication devices.

**8.** A computer-implemented method for account setup, comprising: displaying, by a computer comprising a processor and a memory, a locations wizard configured to permit an input of location information; displaying, by the computer, a bring over number wizard configured to displays a status of numbers that are ported from other communication services to a system administrator; displaying, by the computer, an E911 address wizard configured to permit a user to enter an address in address input boxes; displaying, by the computer, an update and verify location wizard configured for adding updated users and locations; displaying, by the computer, an add user wizard configured to permit a user to enter information for an individual user by selection of add individual user radio button or import users by selection of import users radio button; displaying, by the computer, the add user wizard comprising a download template button and an upload complete template; sending, by the computer, an import user template to one or more end user systems; uploading, by the computer, a user template from one or more end user systems to the system administrator; receiving, by the computer, the user template, perform a validation check and generate a user template wizard; setting up, by the computer, user accounts by associating user information with one or more user accounts; displaying, by the computer, an add device wizard; assigning, by the computer, a MAC address and a device with a user of a customer management system; and displaying, by the computer, a completion wizard.

**9.** The computer-implemented method of claim 8, wherein the bring over number wizard is further configured to permit a letter of authorization required to port a number from one service to another.

**10.** The computer-implemented method of claim 8, wherein the E911 address wizard is further configured to associate each communication device with a physical location

**11.** The computer-implemented method of claim 8, wherein the user template wizard is configured to permit a user to perform one or more of: edit information, view validation errors, cancel an upload, upload the user template again after changing one or more fields of information, or complete an import of user information.

**12.** The computer-implemented method of claim 8, wherein the user template wizard is configured to display a list of errors.

**13.** The computer-implemented method of claim 8, wherein the user template wizard is configured to highlight an error present in a particular field of information.

**14.** The computer-implemented method of claim 8, wherein the add device wizard is prepopulated

with available models of communication devices.

**15.** A non-transitory computer-readable medium embodied with software for account setup, the software when executed: displays a locations wizard configured to permit an input of location information; displays a bring over number wizard configured to displays a status of numbers that are ported from other communication services to a system administrator; displays an E911 address wizard configured to permit a user to enter an address in address input boxes; displays an update and verify location wizard configured for adding updated users and locations; displays an add user wizard configured to permit a user to enter information for an individual user by selection of add individual user radio button or import users by selection of import users radio button; displays the add user wizard comprising a download template button and an upload complete template; sends an import user template to one or more end user systems; uploads a user template from one or more end user systems to the system administrator; receives the user template, perform a validation check and generate a user template wizard; sets up user accounts by associating user information with one or more user accounts; displays an add device wizard; assigns a MAC address and a device with a user of a customer management system; and displays a completion wizard.

**16.** The non-transitory computer-readable medium of claim 15, wherein the bring over number wizard is further configured to permit a letter of authorization required to port a number from one service to another.

**17.** The non-transitory computer-readable medium of claim 15, wherein the E911 address wizard is further configured to associate each communication device with a physical location.

**18.** The non-transitory computer-readable medium of claim 15, wherein the user template wizard is configured to perform one or more of: edit information, view validation errors, cancel an upload, upload the user template again after changing one or more fields of information, or complete an import of user information.

**19.** The non-transitory computer-readable medium of claim 15, wherein the user template wizard is configured to display a list of errors.

**20.** The non-transitory computer-readable medium of claim 15, wherein the user template wizard is configured to highlight an error present in a particular field of information.

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