SIMULTANEOUS TELEPHONE RING APPARATUS AND METHOD

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Methods and apparatus for a simultaneous ring system. The system is configured to be coupled to the end-user line of the telephone network. In response to receiving an incoming call on the user-line, the simultaneous ring system simultaneously ring target phone numbers associated with the telephone number and transfers the telephone call to the telephone network if a connection to one of the target phone numbers is made. These and other advantages of the present invention will become apparent upon reading the following detailed descriptions and studying the various figures of the drawings.
"About a month after I started using Simultaneous Ring our PEX was down for two days. I got all of my calls on my cell phone, and my clients never knew we had a problem."

Jim Ange, Sales Manager

Simultaneous Ring is a service that makes it easy for clients, friends, and family to reach you. With Simultaneous Ring, your telephone number rings all your telephones (dial in at work, cell phone and home office phone) at the same time. Whichever phone you answer gets the call. If you don’t answer the call, callers end up in your chosen voicemail. Now you only have one place to check your messages.

FIG. 7A
"Clients can reach me with one phone call, which they love. If I'm not at home I can pick up the call on my office phone, which saves me the usage charges on my cell phone."

Real Estate Agent

Step 2 of 5
Pick Your Simultaneous Ring Number that people will use to contact you

<table>
<thead>
<tr>
<th>Standard Number $9.95</th>
<th>Premium Number $19.95</th>
</tr>
</thead>
<tbody>
<tr>
<td>(206) 555-7324</td>
<td>(206) 555-7324</td>
</tr>
<tr>
<td>(206) 826-5011</td>
<td>(206) 826-5011</td>
</tr>
<tr>
<td>(206) 826-5024</td>
<td>(206) 826-5024</td>
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<td>(206) 826-5053</td>
<td>(206) 826-5053</td>
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</tr>
<tr>
<td>(206) 826-5482</td>
<td>(206) 826-5482</td>
</tr>
<tr>
<td>(206) 826-5484</td>
<td>(206) 826-5484</td>
</tr>
</tbody>
</table>

Click to Continue: Continue  Go Back

FIG. 7C
"Within the first week my salespeople were calling me up and thanking me for putting them on the service."

Scott Walker
Manager

Step 3 of 5
Configure the Phone Numbers to ring when someone calls your Simultaneous Ring Number (206) 357-7080

The first three numbers are included at the standard price. Each additional number is $2.00 per month.

E161 Numbers: ___________________________ [ ] Cellular
___________________________ [ ] Cellular
___________________________ [ ] Cellular
___________________________ [ ] Cellular

Click to Continue: Continue  Go Back

FIG. 7D
Step 4 of 5
Please enter your Credit Card information which will pay the charge for your Simultaneous Ring Number (206) 357-7010

<table>
<thead>
<tr>
<th>Payment Method</th>
<th>Visa</th>
<th>American Express</th>
<th>MasterCard</th>
<th>Diners Club</th>
<th>Discover</th>
<th>AmEx</th>
<th>DC</th>
<th>MC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Card #</td>
<td></td>
<td>Exp. Date</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Name on Card</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billing Address</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State</td>
<td>WA</td>
<td>Zip Code</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

We will email your billing statements to your configured email account. This option determines the format of the statements we send: Most email clients (including Outlook Express and Outlook's support email format). Only select Plain Text format if your email client does not support HTML format.

- Email Billing Notifications in HTML Format
- Email Billing Notifications in Plain Text Format

Click to Continue: Continue Go Back

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FIG. 7E
"About a month after I started using Simultaneous Ring our PBX was down for two days. I got all of my calls on my cell phone, and my clients never knew we had a problem."

Jim Ange, Sales Manager

Step 5 of 5
Congratulations Jim!

We are now ready to activate your Simultaneous Ring number 357-7080. To activate your account, click the 'Activate' button below.

When you activate your account, we will bill you for the following charges:

a) A one-time registration fee of $29.95
b) A monthly service charge prorated for the remaining month

c) Applicable federal, state and local taxes of $3.22

The total charge billed to your card will be $36.64. We will email a detailed statement listing all of the charges.

You have elected to bill your account on a monthly basis. We will maintain your credit card on file for future billing. We will email a detailed statement with each future billing.

Click Here to Activate your Account

Activate Go Back

FIG. 7F
"About a month after I started using Simultaneous Ring our PBX was down for two days. I got all of my calls on my cell phone, and my clients never knew we had a problem."

Jim Angr Sales Manager

Welcome Simultaneous Ring Subscriber
Please enter your 10 digit Simultaneous Ring Number: punctuation (spaces or hyphens) are required.

For example: if your Simultaneous Ring Number were (312)555-1212, enter 312-555-1212.

My Simultaneous Ring Number is: 
My Password is: 
Secure Login

Forgot your password?
"About a month after I started using Simultaneous Ring, our PBX was down for two days. I got all of my calls on my cell phone, and my clients never knew we had a problem."

Jim Ange
Sales Manager

Change Your Target Information
Configure the Phone Numbers to ring when someone calls your Simultaneous Ring Number (206) 826-5091

The first three numbers are included at the standard price. Each additional number is $2.00 per month.

Enter Numbers
2063616202

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FIG. 7H
FIG. 7J

"I was out of town for a few days and with SimulRing, the calls came right to me, via my cell phone, without any interruptions or weird procedures for anyone. This service is great!"

Steven Greenberg
San Francisco
SIMULTANEOUS TELEPHONE RING APPARATUS
AND METHOD

BACKGROUND OF THE INVENTION

[0001] Field of Invention

[0002] The present invention relates generally to telephone communication systems, and more particularly, the present invention relates to a simultaneous telephone ring system and method.

[0003] Description of the Related Art

[0004] Trends such as telecommuting, virtual offices, contract employment, etc., have led to the proliferation of both land-based and cellular phone services. It is not uncommon for a person to have different phone numbers at their corporate office, their home office, their home, and one or more cell phone numbers. Callers are therefore often required to dial multiple numbers in order to reach a person. This is not only a waste of time, but expensive. A number of prior “simultaneous ring” systems have been proposed.

[0005] One type of known simultaneous ring system relies on an Advanced Intelligent Network (AIN), which is a computer (or set of computers) that is integrated into the (typically Signaling System Seven (SS7)) control network of a phone company. For example at Cincinnati Bell Telephone, an AIN system has been programmed to implement a simultaneous ring service. When a call to a telephone number with the simultaneous ring service is placed on the SS7 telephone network, the AIN looks up the associated target telephone numbers in a database and rings each number. If one of the phones is answered, a talk path is established and the calls to the other target telephone numbers are terminated. This arrangement, however, has several drawbacks. AIN systems are very expensive, complicated, and difficult to maintain. The AIN system also has to be integrated into the SS7 telephone network and therefore has to be implemented by the phone company.

[0006] Another type of known simultaneous ring system relies on a PBX or some other type of central switching device which associates one or more target phone numbers with an incoming telephone number. When a telephone call on the incoming number is received, the central switching device places a call to each of the target phone numbers. If one of the target phone numbers is answered, a link through the switching device to the target number is established. This arrangement, which is sometimes referred to as “conferencing” or “bridging”, requires the central switch to maintain the link for the entire duration of the telephone call. Consequently, conferencing or bridging is expensive because phone service charges are accrued during the entire duration of the phone call.

[0007] A simultaneous ring system and method that connects to a telephone company network over a standard end-user service line and which performs a call transfer using the telephone company network when a connection is made with a target phone number, thereby avoiding conferencing or bridging, is therefore needed.

SUMMARY OF THE INVENTION

[0008] The present invention relates to an apparatus and method for providing simultaneous ring services for a telephone number associated with an end-user line of a telephone network. The system includes a simultaneous ring system configured to couple the incoming caller line to the answering (or default) end-user line of the telephone network. In response to receiving an incoming call on the user-line, the simultaneous ring system simultaneously rings target phone numbers associated with the telephone number and then transfers the telephone call to the telephone network if a connection to one of the target phone numbers is made. If a connection is not made (i.e., the call is not answered), the incoming call is transferred to the user’s default target, which is typically the user’s Voice Mail. These and other advantages of the present invention will become apparent upon reading the following detailed descriptions and studying the various figures of the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The invention may best be understood by reference to the following description taken in conjunction with the accompanying drawings in which:

[0010] FIG. 1 is a diagram of the simultaneous ring system of the present invention coupled between a telephone company phone network and the Internet.

[0011] FIG. 2 is a block diagram of the simultaneous ring system of the present invention.

[0012] FIG. 3 is block diagram of simultaneous ring modules contained within the simultaneous ring-system.

[0013] FIG. 4 is a flow diagram illustrating the operation of the simultaneous ring system of the present invention.

[0014] FIG. 5 is a block diagram of a database hierarchy used in the simultaneous ring system of the present invention.

[0015] FIG. 6 is a block diagram of a network of simultaneous ring systems according to one embodiment of the present invention.

[0016] FIGS. 7A through 7J are screen shots of exemplary web pages hosted by the simultaneous ring system for signing up for the simultaneous ring service and administering an existing account on the simultaneous ring service of the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0017] Referring to FIG. 1, a diagram of the simultaneous ring system 10 of the present invention is shown coupled between a telephone network 12 and the Internet 14. A standard user telephone line 16 is used to connect the phone network 12 and the simultaneous ring system 10. The phone network 12 includes a plurality of switching stations 18a-18r connected together in an arrangement commonly called a Signaling System 7 (SS7) network used for call set-up and disconnect. As is well known in the art, the SS7 network is used for establishing a call path between a caller and a target phone number. A separate voice path network is used once the call path is established. The simultaneous ring system 10 is also coupled to the Internet 14 either indirectly through an Internet Service Provider (not shown) or directly. In either arrangement, the Internet 14 allows Internet users to access the simultaneous ring system 10 for a variety of reasons,
such as to sign-up for the simultaneous ring service or to update an existing simultaneous ring account, as is described in greater detail below.

[0018] Referring to FIG. 2, a block diagram of the simultaneous ring system 10 is shown. The simultaneous ring system 10 includes a voice card 30 coupled to the user telephone line 16, a server 32 including a hardware driver 34 and simultaneous ring software 36 to control operation of the simultaneous ring system 10, a relational database 38 for storing subscriber record information and target telephone number information, and a web server 40 coupled between the database 38 and the Internet 14. In one embodiment, the voice card is a model D480/SC-2T1 from Intel Corporation (Dialogic Subsidiary), Santa Clara, Calif. The user telephone line 16 is an Integrated Services Digital Network (ISDN) line with Two B-Channel Transfer (TBCT) capability. For example the user telephone line 16 may be a “Primary Rate Interface (ISDN-PRI)” twenty-three B-Channel and one D-Channel line with six lines used for incoming calls and seventeen lines used for outgoing calls. In alternative embodiments, other types of user telephone lines 16 may be used, such as ISDN PRI European Standard and ISDN Basic Rate Interface (BRI). The hardware driver 34 provides an interface between the voice card 30 and the server 32. The database 38 is accessible by both the server 32 and by Internet users through the web server 40. In alternative embodiments, the number of channels provided on the user telephone line 16 may vary depending on the number of subscribers to the simultaneous ring system 10 and the amount of incoming telephone calls. In the situations where the number of subscribers and incoming telephone call traffic is high, multiple user telephone lines 16 and voice cards 30 may be needed.

[0019] In one embodiment, the user telephone line 16 provides a Primary Rate Interface (PRI) service between the telephone network 12 and the simultaneous ring system 10. With the PRI service, a large number of telephone numbers (i.e., 500 or more) are associated with the telephone line 16. Telephone calls received by the telephone network 12 corresponding to the PRI telephone numbers are offered to the simultaneous ring system 10. With this arrangement, a simultaneous ring subscriber is assigned to one of the PRI telephone numbers. One telephone line 16 can therefore service multiple simultaneous ring subscribers. If the number of subscribers exceeds the number of telephone numbers associated with the PRI service, then additional simultaneous ring systems 10 and/or telephone lines 16 with PRI service may be added in a modular fashion so that any number of subscribers can be serviced by any of the simultaneous ring systems and/or telephone lines with PRI service.

[0020] Referring to FIG. 3, a block diagram of the modules contained in the simultaneous ring system 36 is shown. The simultaneous ring software 36 includes an incoming call manager 50, an outgoing call manager 52, and a call manager 54. The incoming call manager 50 handles inbound call notification by passing the SS7 signal received on one of the incoming channels of the user telephone line 16 to the call manager 54 and generates a ringing signal so that the caller hears a ring. The call manager 54 performs a first query of the database 38 to determine if the incoming call is to a telephone number that belongs to a valid subscriber and a second database query to look up the target phone numbers if the telephone number belongs to a valid subscriber. Assuming a valid subscriber, the outgoing call manager 54 initiates the SS7 calls on the outbound channels of the user telephone line 16 for each of the target telephone numbers. When one of the target telephone numbers is answered or goes into some type of voice mail or automated answering machine system (through a PBX system or otherwise), the telephone network 12 notifies the outgoing call manager 52 that a call path connection has been made. In turn, the call manager 54 is notified of the connection and causes a Two-B Channel Transfer (TBCT) between the incoming caller and the connected outgoing line. When this occurs, the simultaneous ring system 10 is switched out of the connection. Consequently the simultaneous ring system 10 does not perform conferencing or bridging. In accordance with another embodiment, the simultaneous ring system 10 may maintain the connection between the caller and the target telephone number for the duration of the call if conferencing or bridging is desired.

[0021] In yet another embodiment, the outgoing call manager 52 may be configured to initiate the outgoing calls at various times to compensate for different set-up times of the target telephone numbers so that they all ring at substantially the same time. For example, a local call to a land-based phone typically takes approximately 750 milliseconds to establish a connection and to start ringing whereas a connection for long distance call may require 1,250 milliseconds or a call to a cell phone may require 4,250 milliseconds. Accordingly, the outgoing call manager 52 can be configured to introduce a dynamic delay before initiating calls to local land-based telephones until a ringing signal is detected from all the target cell phone and/or long distance telephone numbers. Alternatively, the outgoing call manager can be programmed to a configurable fixed delay so that all the target phone numbers ring at substantially the same time. For example, a call to a local land based phone may be delayed 3,500 milliseconds so that it may simultaneously ring with a target cell phone. It should be noted that the aforementioned dynamic and fixed delays are only exemplary and that a delay of any time period may be used to achieve substantial simultaneous ringing.

[0022] Referring to FIG. 4, a flow diagram 60 illustrating the operation of the simultaneous ring system 10 is shown. Initially the simultaneous ring system 10 receives an incoming call (step 62) over the user telephone line 16. The simultaneous ring software 36 decodes the phone number (step 64) and then queries the database 38 (step 66) to determine if the phone number belongs to a subscriber (decision diamond 68). If the phone number does not belong to a subscriber, the processing of the incoming call is terminated (step 72). If the phone number belongs to a subscriber, the simultaneous ring system 10 then determines if the subscriber is valid (decision diamond 72). If the subscriber is not valid, the system terminates the call processing (step 74). If valid, the system 10 again queries the database 38 for the target telephone numbers associated with the incoming telephone number (step 76). Next the simultaneous ring system 10 initiates calls to the target cell phone numbers (if present), the long distance numbers (if present) (step 78) and the local land-based phone numbers (if present) (step 80). Depending on the embodiment used, the system 10 may introduce either a dynamic and/or a configurable delay (step 80) before initiating the calls to the land-based local numbers so they may ring substantially.
simultaneously with the long distance calls or cell phone calls. Once the target phone numbers are called, the system 10 determines if one of the targets is answered (decision diamond 82). If yes, a Two B Channel Transfer (TBCT) to the target that answered is performed (step 84). If no target answers before the predetermined threshold expires (decision diamond 86), then a Two B Channel Transfer to the default target telephone number (step 88) is performed. When the Two B Channel Transfer occurs, the calls to the other targets are terminated (step 90) and the processing of the incoming call is complete (step 92).

[0023] Referring to FIG. 5, a block diagram illustrating the database hierarchy 100 of the database 38 is shown. The database 38 includes a plurality of account records 102. Each account record includes information related to a billing entity for a subscriber. For example, if the billing entity is an individual, the account record 102 typically includes the billing address, information on how to bill the account (i.e. a credit card that is billed every month), and whether the user has available credit to cover outgoing toll calls to target long distance or international numbers. With corporate accounts, the account record 102 also includes billing information, available credit, and how many subscribers are associated with the corporate account. In addition, each account record 102 includes a pointer 104 to one or more subscriber records 106. Each subscriber record 106 includes the subscriber’s name, email address, user-defined password, other personal information, and a flag which determines if the subscriber is valid or not. If the account record 102 is for an individual, then only one subscriber record 106 is provided. On the other hand, if the account record 102 is for a corporation, business or other organization or entity, then multiple subscriber records 106 are provided, one for each subscriber. Each subscriber record 106 also includes a pointer 108 to a service record 110. The service record 110 includes the primary telephone number assigned to the subscriber, the target telephone number(s), associated with the primary number, and information related to each target phone number (i.e., cell, long distance, international, etc.).

[0024] Referring to FIG. 6, a block diagram of a network 120 of simultaneous ring systems 10 is shown. Specifically in this example, simultaneous ring systems 10a, 10b, and 10c are provided for area codes 650, 408 and 415 respectively. A master database 122, which includes all of the account records 102, subscriber records 106 and service records 110 for the entire system 120, is coupled to each of the simultaneous ring systems 10a, 10b and 10c respectively. The database 38 in each simultaneous ring system 10a, 10b, and 10c includes a second copy of the subscriber records 106 and service records 110 for subscribers having a primary number within the 650, 408, and 415 area code respectively. With this arrangements an Internet user can access the master database 120 via a single web portal over the Internet 14 and sign up for the simultaneous ring service or manage an existing account, regardless of which area code they live in. For example, when a subscriber living in the 415 area code creates or updates an account, the account information is written into the master database 122 and into the local database 38 within the system 10a. Thus a regional, nation-wide or even a global simultaneous ring system can be implemented and accessed from a single web page portal. It should be noted that the embodiment, shown in FIG. 6 is only exemplary. In area codes with many local exchanges, a similar arrangement with one or more systems 10 for each exchange may be provided.

[0025] Referring to FIGS. 7A through 7J, a series of web pages illustrating the sign-up and administration of an account on the simultaneously ring system 10 is shown. In FIG. 7A, a home page describing the simultaneous ring system 10 is shown. Also provided is a “Get Service Now” icon and a “Subscribers” icon. It should be noted that the web pages of FIG. 7A through 7J are only exemplary and other web pages with the same or a different look, feel, and sequence could be used.

[0026] When the Get Service Now icon is selected, the web page illustrated in FIG. 7B is displayed. This web page enables the user to become a subscriber by completing and submitting the name, email, password, city, etc. data entry fields. When this information is correctly entered using the “Continue” icon, the web page of FIG. 7C appears. With this page, the user selects their primary telephone number. In the embodiment shown, standard numbers are provided at one price and more desirable “premium” numbers are provided at a higher price. In one embodiment, the displayed numbers are affiliated with the ISDN PRI (or group of PRI telephone connections) associated with the standard telephone line 16. Once a primary number is selected and entered by clicking the “Continue” icon, the web page of FIG. 7D appears. With this page, the user is required to enter their target phone numbers and indicate if each number is cellular or not and if voice mail is associated with the number. Generally only one entered number has voice mail and this number becomes the user’s “default” number. When this information is entered using the “Continue” icon, the web page of FIG. 7E appears. With this page, the user is required to enter their credit card, address, and other billing information. Again when the user enters this information using the “Continue” icon, the web page of FIG. 7F appears. On this page, the user is presented with a text message of the cost of the service, billing procedures, etc. and an “Activate” icon. When the Activate icon is selected, all the information previously entered is written into the various records of the database 38 and the user becomes a subscriber.

[0027] When the Subscribers icon is selected, the web page of FIG. 7G appears. This page requests a subscriber to enter their simultaneous ring (e.g. their primary number) and their previously defined password. Once this information is entered using the “Secure Logon” icon, the web page of FIG. 7H appears. This page enables the subscriber to change or add additional target numbers. Similarly the web page of FIG. 7I allows the subscriber to update their personal information and the web page of FIG. 7J allows the subscriber to update their billing information.

[0028] Although only a few embodiments of the present invention have been described, it should be understood that the present invention may be embodied in many other specific forms without departing from the true spirit or the scope of the invention. Therefore, the present examples are to be considered as illustrative and not restrictive, and the invention is not to be limited to the details given herein, but may be modified within the scope of the appended claims.
What is claimed is:

1. A method of offering simultaneous ring services for a telephone network, comprising:
   - accessing a user telephone line provided by the telephone network, the telephone line having an associated telephone number;
   - Receiving a telephone call placed to the telephone number on the end user telephone line;
   - retrieving target telephone numbers associated with the telephone number in response to the telephone call;
   - calling the target telephone numbers so that telephones associated with the target telephone numbers ring substantially simultaneously; and
   - transferring the telephone call to the telephone network after a connection is made with one target telephone number among the target telephone numbers.

2. The method of claim 1, further comprising terminating the telephone call on the user telephone line after the connection is made with the one target telephone number.

3. The method of claim 1, wherein the transferring the telephone call further comprises transferring the telephone call to a default target telephone number if no connection is made with the target telephone numbers.

4. The method of claim 3, wherein the default telephone number is determined by the time of day the telephone call was received.

5. The method of claim 3, wherein the default telephone number is determined by the day of the week the telephone call was received.

6. The method of claim 1, wherein the transferring the telephone call to the one target telephone number further comprises transferring the telephone call to the first target telephone number which is answered among the target telephone numbers.

7. The method of claim 1, wherein the calling of the target telephone numbers further comprises initiating the call to each of the target telephone numbers at substantially the same time.

8. The method of claim 1, wherein the calling of the target telephone numbers further comprises initiating at various times the telephone calls to compensate for different set-up times of the target telephone numbers so that the associated telephones all ring at substantially the same time.

9. The method of claim 8, wherein the coordinating at the various times further comprises selectively introducing a dynamic delay before initiating the telephone calls to the target telephone numbers.

10. The method of claim 9, wherein the dynamic delay is configurable.

11. The method of claim 1, wherein the end-user telephone line includes one of the following types of telephone lines: ISDN Primary Rate Interface; ISDN Primary Rate Interface European Standard; and ISDN Basic Rate Interface.

12. The method of claim 1, further comprising checking to determine if the phone number associated with the phone call belongs to a valid subscriber before calling the target telephone numbers.

13. The method of claim 1, further comprising forwarding caller ID information associated with the party that initiated the telephone call to the target telephone numbers.

14. The method of claim 1, wherein the telephone number and the associated target telephone numbers are maintained in a database.

15. The method of claim 1, wherein the database contains a subscriber record for maintaining account information related to a subscriber assigned to the phone number and a target record for containing the target telephone numbers.

16. The method of claim 15, wherein the account information for the subscriber further comprises at least one of the following types of information: account status; credit status; and personal information regarding the subscriber.

17. The method of claim 15, wherein the target record further comprises at least one of the following types of information: the target telephone numbers; a default telephone number; a time of day default telephone number; and a day of week default telephone number.

18. An apparatus providing simultaneous ring services for a telephone number associated with an end-user line of a phone network comprising a simultaneous ring system configured to be coupled to the end-user line of the telephone network, the simultaneous ring system configured to simultaneously ring target phone numbers associated with a telephone number and transferring the telephone call to the telephone network if a connection is made to one of the target phone numbers is made in response to receiving an incoming call on the user-line.

19. The apparatus of claim 18, wherein the simultaneous ring system contains a voice card to interface with the end-user line of the telephone network.

20. The apparatus of claim 18, wherein the simultaneous ring system further comprises:
   - an incoming call manager configured to receive the incoming call;
   - a call manager configured to receive the incoming call from the incoming call manager, the call manager further configured to:
     - perform a first database query to determine if the telephone number belongs to a valid subscriber; and
     - perform a second database query to retrieve the target telephone numbers if the user is a valid subscriber; and
   - an outbound call manager configured to initiate outbound telephone calls to the telephone network over the user-line and if a connection is made to one of the target telephone numbers, transferring the outbound telephone call to the one target telephone number to the telephone network.

21. The apparatus of claim 18, wherein the call manager is further configured to generate a ringing signal so the caller hears a ring after receiving the incoming call from the incoming call manager.

22. The apparatus of claim 18, wherein the outbound call manager is further configured to terminate all of the remaining outbound telephone calls once the connection to the target telephone number is made.

23. The apparatus of claim 18, wherein the outbound call manager is further configured to transfer a predetermined outbound telephone call associated with a default target telephone number to the telephone network if no connection is made with any of the target telephone numbers.

24. The apparatus of claim 23, wherein the default telephone number is determined by the time of day the incoming telephone call was received.
25. The apparatus of claim 23, wherein the default telephone number is determined by the day of the week the incoming telephone call was received.

26. The apparatus of claim 20, wherein the calling the target telephone numbers further comprises initiating the outbound telephone calls to each of the target telephone numbers at substantially the same time.

27. The apparatus of claim 20, wherein the calling the target numbers further comprises coordinating at various times the outbound telephone calls to compensate for different set-up times of the target telephone numbers so that they all ring at substantially the same time.

28. The apparatus of claim 27, wherein the coordinating at the various times further comprises selectively introducing dynamic delays before initiating the outbound telephone calls to the target telephone numbers respectively.

29. The apparatus of claim 28, wherein the dynamic delay is configurable.

30. The apparatus of claim 18, wherein the end-user telephone line includes one of the following types of telephone lines: ISDN Primary Rate Interface; ISDN Primary Rate-Interface European Standard; and ISDN Basic Rate Interface.

31. The apparatus of claim 18, wherein the simultaneous ring system is further configured to forward caller ID information associated with the party that initiated the incoming call to the called telephone numbers.

32. The apparatus of claim 18, wherein the simultaneous ring system further comprises a database configured to maintain the telephone number and the associated target telephone numbers.

33. The apparatus of claim 32, wherein the database contains a subscriber record for maintaining account information related to a subscriber assigned to the phone number and a second record for containing the target telephone numbers.

34. The apparatus of claim 33, wherein the account information for the subscriber further comprises at least one of the following types of information: account status; credit status; and personal information regarding the subscriber.

35. The apparatus of claim 33, wherein the second record further comprises at least one of the following types of information: the target telephone numbers; a default telephone number; a time of day default telephone number; and a day of week default telephone number.

36. A method of providing simultaneous ring telephone services comprising:

- maintaining a web site on a server accessible over the Internet, the web site configured to:
  - assign a primary number to a subscriber in response to a request by the subscriber for simultaneous ring telephone services;
  - associate one or more target numbers as defined by the subscriber with the primary number, and
  - store the primary number and the target numbers so that the target numbers can be called when a call on the primary number is received.

37. The method of claim 36, wherein the web site is further configured to assign a default target number among the target numbers as defined by the subscriber.

38. The method of claim 37, wherein the target telephone numbers can be associated with the following types of phones: land based telephones; or wireless telephones.

39. The method of claim 36, wherein the web site is further configured to receive user information of the subscriber, the user information including the at least one of the following: the name of the subscriber; and billing information for the subscriber.

40. The method of claim 36, wherein the web server is further configured to allow the subscriber to update the target numbers.

41. The method of claim 36, wherein the web server is further configured to allow the subscriber to update the primary number.

42. A system configured to provide simultaneous ring telephone services comprising:

- a server configured to be accessible over the Internet and to host a web site, the web site configured to:
  - assign a primary number to a subscriber in response to a request by the subscriber for simultaneous ring telephone services;
  - associate one or more target numbers as defined by the subscriber with the primary number, and
  - store in a memory coupled to the server the primary number and the target numbers so that the target numbers can be called when a call on the primary number is received.

43. The system of claim 42, wherein the web site is further configured to assign a default target number among the target numbers as defined by the subscriber.

44. The system of claim 43, wherein the target telephone numbers can be associated with the following types of phones: land based telephones; or wireless telephones.

45. The system of claim 42, wherein the web site is further configured to receive user information of the subscriber, the user information including the at least one of the following: the name of the subscriber; and billing information for the subscriber.

46. The system of claim 42, wherein the web server is further configured to allow the subscriber to update the target numbers.

47. The system of claim 42, wherein the web server is further configured to allow the subscriber to update the primary number.