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**TELEPHONE QUICK DIALING AND
RE-DIALING****CROSS-REFERENCES TO RELATED
APPLICATIONS**

This application is a divisional application of U.S. application Ser. No. 09/816,563, filed Mar. 23, 2001 now U.S. Pat. No. 6,856,816.

BACKGROUND OF THE INVENTION**1. Field of the Invention**

The present invention relates to the field of telephony. More specifically, the present invention relates to the quick dial and re-dial features of telephones.

2. Background Information

Advances in integrated circuit, microprocessor, networking, and telecommunication technologies have led to wide spread adoption of computers, fax machines, as well as wireless mobile client devices, in particular, wireless mobile telephones. Modern powerful and yet inexpensive computers coupled with high speed communication accesses allow even the average users to access the World Wide Web, exchange emails with one another, participate in instant messaging or on-line chats, and engage in e-commerce. Wireless mobile phones offer the advantage of enabling their users to be communicatively reachable by their business associates, friends and family members, wherever the users may be, as long as they are within the reach of the service networks. With the cost of ownership continues to decline, even non-professionals including teenagers are increasingly dependent on their wireless mobile phones to meet their communication needs.

As a result of this explosive adoption of telephony enabled computing/communication devices, there has been a significant increase in the need for telephone numbers, leading to the introduction or division and formation of new calling areas (with each of the new calling areas having its own new "area code"). In turn, more and more metropolitan areas require ten digits dialing, even for "local" calls.

In the meantime, as advances in technology and competition continue to drive down the cost of ownership, including the offering of one rate calling plan, for both local and long distance calls (for at least the 48 contiguous states), and support of multiple protocols (e.g. for both U.S. and European calling), more and more users, especially business users who travel frequently to "away" locations, use their wireless mobile phones as their primary communication devices, taking and placing calls from their "home" as well as "away" locations.

To facilitate ease of dialing, most wireless mobile phones as well as many wired or cordless conventional telephone sets offer the feature of quick dialing using any one of a number of saved phone numbers, typically the most frequently called numbers, such as a user's home number, office number and so forth. However, in many instances, users still wind up dialing other infrequently called numbers. With increased mobility (dialing from "away" locations), and dialing areas requiring 10-digit local dialing, often users would fail to dial with the proper prefixes. Typically, the user is provided with an audio error message reminding the user to dial with certain requisite dialing prefix. This feedback or reminder often aggravates the user, as the system appears to know what's wrong with the number dialed, but does not automatically repair the incorrect dialing format.

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Thus, an improved approach that supports the increased mobility, and changing dialing behavior of telephone users, providing these users with enhanced usability and calling experience, is desired.

SUMMARY OF THE INVENTION

A telephone is equipped to enable a user to enter a dialing prefix, an append indicator, and a dialing request to quickly place a call to a callee from a location where calling the callee requires the dialing prefix. In response, the telephone places the call to the callee using the dialing prefix and a last placed call number. In an alternate embodiment, a previous dialed number may be used instead.

In yet other alternate embodiments, the telephone detects for a dialing error, using voice recognition technology, and either re-places the call or facilitates re-placement of the call in a corrected manner.

These features are especially useful to a user who has made an error in placing the call in a calling format without including the required dialing prefix.

In one embodiment, the telephone is a wireless mobile phone; in another, the telephone is a wired or cordless telephone handset. In yet other embodiments, the "telephone" is a personal digital assistant incorporated with a telephony module, or a computing device incorporated with telephony facilities.

BRIEF DESCRIPTION OF DRAWINGS

The present invention will be described by way of exemplary embodiments, but not limitations, illustrated in the accompanying drawings in which like references denote similar elements, and in which:

FIGS. 1-2 illustrate two front views of two wireless mobile phones suitable for use to practice the present invention, in accordance with two embodiments;

FIG. 3 illustrates an internal component view of the wireless mobile phones of FIGS. 1-2, in accordance with one embodiment;

FIG. 4 illustrates a first aspect of the method of the present invention, in accordance with two embodiments;

FIG. 5 illustrates the operational flow of the relevant aspects of the operational logic of FIG. 3 in support of the first aspect of the method of FIG. 4, in accordance with one embodiment;

FIG. 6 illustrates a second aspect of the method of the present invention, in accordance with one embodiment; and

FIG. 7 illustrates the operational flow of additional relevant aspects of the operational logic FIG. 3 in support of the second aspect of the method of the present invention, in accordance with one embodiment.

DETAILED DESCRIPTION OF THE INVENTION

In the following description, various aspects of the present invention will be described referencing the illustrated embodiments. However, it will be apparent to those skilled in the art that the present invention may be practiced with alternate embodiments including only some or all aspects of the present invention. In particular, the present invention will be described referencing wireless mobile phone embodiments. However, it will be apparent to those skilled in the art that the present invention may be practiced with wired or cordless telephone handsets. The present invention may also be practiced with personal digital assistants incorporated with tele-