

SELECTIVE SCREENING OF INCOMING CALLS FOR CELLULAR TELEPHONE SYSTEMS

Abstract

The prior art deficiencies are solved, in accordance with the disclosure
5 herein, by maintaining a list (24,25,26) of caller identities and by determining, via
reference to this list, the type of call treatment that an incoming call should receive.
This technique may be termed "divergent call treatment". The caller identities may
be telephone numbers. The list of telephone numbers may be stored in the telephone
company's switching facilities (12) or in the subscriber's telephone instrument. A
10 wide range of call treatment options are provided, and these options can be
performed regardless of whether the list is maintained in the telephone company's
switching facilities or in the subscriber's telephone instrument.

In connection with cellular telephones (e.g. 28), the divergent call
treatment technique of the present invention is used to particular advantage. In
15 accordance with one of the embodiments disclosed below, for example, the list
maintained is a list of accepted callers, and it is maintained by the telephone service
supplier. When a call comes in, a determination is made as to whether the caller is
an "accepted" caller. If so, the call is forwarded to the cellular telephone (28).
Otherwise, the caller is offered the option to pay for the call. A willingness on the
20 part of the caller to pay for the call is indicated by a signal from the caller. This
signal may be, for example, the pressing of one or more keys on a standard DTMF
touch-tone pad, such as #1. In response to such a signal, the call is forwarded to the
cellular telephone. In the absence of such a signal, the call is disconnected or
diverted, for example, to the land line phone of the cellular telephone subscriber.

25 When the list of accepted callers is maintained in the subscriber's
telephone instrument, means are included to attenuate the ringing signal for an
interval sufficient to provide appropriate call treatment for the call and, optionally,
means are included for call forwarding, and/or recording of incoming messages.

FIG. 1

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