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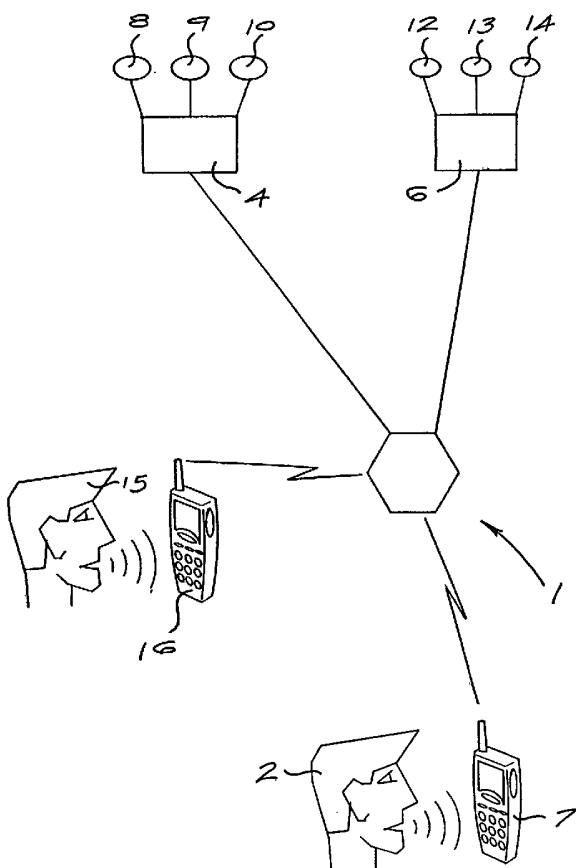
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(54) Title: VOICE MESSAGING



(57) Abstract: A method of administering a voice messaging facility associated with a telecommunication subscriber is provided which includes the steps of establishing a stored telephone directory of potential callers to the telecommunication subscriber; categorising the potential callers in the stored telephone directory into a plurality of caller groups and providing a different audible message corresponding to each caller group, each one of the different audible messages being activatable when an incoming call from anyone of the potential callers in the corresponding caller group is diverted to the voice messaging facility. A telecommunication network making use of the above method is also provided.



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

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VOICE MESSAGING**FIELD OF THE INVENTION**

15 This invention relates to a method of administering a voice messaging facility and, more particularly, to a method of administering a voice messaging facility associated with telecommunications and, still more particularly, but not exclusively, mobile telecommunications. This invention also relates to a telecommunications network.

20 **BACKGROUND TO THE INVENTION**

It is known for a telecommunication subscriber to have an associated voice messaging facility, generally referred to as voicemail. The telecommunication subscriber is able to configure a telecommunication network to which he subscribes to divert an incoming call to the voice messaging facility, either unconditionally, if the subscriber is
25 busy on another call or, if the incoming call is not answered within a predefined time. In the context of mobile telecommunication, the call may be diverted to the voice messaging facility if the subscriber is not logged on to a mobile network or if the subscriber is unavailable for any other reason.

30

Prior to diverting an incoming call to the voice messaging facility, the subscriber's telecommunication handset rings and the caller hears a corresponding ringing tone on the caller's telecommunication handset. When the incoming call is diverted to the voice messaging facility as described above, the caller hears an audible message
35 which is either synthesised or recorded by the subscriber.

5 It is also known for a certain voice messaging facilities to be interfaceable with a telephone directory stored in the subscriber's telecommunication handset. Many telecommunication networks provide a telephone number from which an incoming call originates. The originating telephone number is used as an index into the telephone directory to enable the telecommunication handset to display to the subscriber an
10 identity of a caller. When this facility is unavailable, a subscriber is able to configure the voice messaging facility according to certain desired filtering rules. For example, each subscriber in the telephone directory can be assigned to one or more caller groups, each group having specified properties. For example, one caller group may be associated with close family members and incoming calls from this group are never
15 diverted to the voice messaging facility, while another caller group may be associated with business associates or colleagues and incoming calls from this group may be diverted to the voice messaging facility under different circumstances.

Such prior art voice messaging facilities are disadvantageous in that they have limited
20 functionality and a subscriber is often unable to optimally customise his voice messaging facility for maximum efficiency.

OBJECT OF THE INVENTION

25 It is an object of this invention to provide a method of administering voice messaging which will, at least partially, alleviate the abovementioned difficulties and disadvantages.

SUMMARY OF THE INVENTION

30 In accordance with this invention there is provided a method of administering a voice messaging facility associated with a telecommunication subscriber, including the steps of:
establishing a stored telephone directory of potential callers to the telecommunication
35 subscriber;

5 categorising the potential callers in the stored telephone directory into a plurality of
caller groups; and
providing a different audible message corresponding to each caller group, each one of
the different audible messages being activatable when an incoming call from any one
of the potential callers in the corresponding caller group is diverted to the voice
10 messaging facility.

There is further provided for one of the caller groups to relate to family of the
telecommunication subscriber, a further of the caller groups to relate to friends of the
telecommunication subscriber, and for another one of the caller groups to relate to
15 business associates and colleagues of the telecommunication subscriber.

There is still further provided for automatically diverting to the voice messaging facility
any incoming call which does not originate from a potential caller in the stored
telephone directory, for automatically diverting any incoming call which does not
20 originate from a potential caller in the stored telephone directory without causing a
telecommunication handset of the telecommunication subscriber to ring, and for
automatically diverting any incoming call which does not originate from a potential
caller in the stored telephone directory without causing a caller to hear a
corresponding ringing tone on the caller's telecommunication handset.

25 There is yet further provided for selectively diverting incoming calls from callers in any
one or more of the caller groups to the voice messaging facility without causing the
telecommunication handset of the telecommunication subscriber to ring and without
causing the caller to hear a corresponding ringing tone on the callers
30 telecommunication handset.

The invention also provides a telecommunication network characterised in that it
includes for a telecommunication subscriber a stored telephone directory of potential
callers to the telecommunication subscriber with the potential callers categorised into
35 a plurality of caller groups, and having a messaging facility wherein a different audible

5 message can be associated with each caller group, the associated audible message being activatable when an incoming call from any one of the potential callers in the corresponding caller group is diverted to the voice messaging facility.

10 A further feature of the invention provides for the telecommunication network to be a mobile telecommunication network.

Still further features of the invention provide for one of the caller groups to relate to family of the telecommunication subscriber, for a further group to relate to friends of the telecommunication subscriber, and for a still further group to relate to business associates and colleagues of the telecommunication subscriber.

15

BRIEF DESCRIPTION OF THE DRAWINGS

One embodiment of the invention is described, by way of example only, with reference to Figure 1 which is a diagrammatic illustration of a mobile telecommunication network. Although the embodiment is described with particular reference to the administration of a voice messaging facility associated with mobile telephony, it is to be clearly understood that the scope of the invention is not limited to this particular field.

DETAILED DESCRIPTION OF THE INVENTION

A mobile telecommunication network (1) and a subscriber (2) are shown in Figure 1.

30 The subscriber (2) is provided with a facility (4) for establishing a stored telephone directory of potential callers who are known to the subscriber. Such a facility, which is well known in the art, will not be described here in detail. It is an essential feature of the invention that the data in the stored telephone directory is accessible by the telecommunication network and in this embodiment the facility (4) forms part of the network (1). The subscriber (2) is also provided with a voice messaging facility (6) on
35 which the telecommunication subscriber may record one or more audible messages.

5

By means of his mobile telecommunication handset and (7), the subscriber (2) creates entries in his stored telephone directory (4). Each entry in the directory consists of an identity and a corresponding telephone number of a potential caller to the subscriber (2). The entries in the telephone directory are categorised into a plurality of caller groups (8,9, 10), and each caller group (8,9,10) is associated with a different audible message (12,13, 14) recorded by the subscriber on the voice messaging facility (6). Each one of the different audible messages (12,13,14) is activatable when an incoming call from a caller (15) corresponds to one of the potential callers in the caller groups (8,9,10) and is diverted to the voice messaging facility (6).

15

In this embodiment, a first one of the caller groups (8) established by the subscriber (2) relates to Family of the subscriber (2), a second caller group (9) to Friends of the subscriber (2), while a further caller group (10) relates to Business Associates and Colleagues of the subscriber (2). It will be appreciated by those skilled in the art that the subscriber (2) may, in this manner, establish different audible messages (12,13,14) for different caller groups (8,9,10). For example, callers from the Family caller group (8) will hear an audible message (12) that is warm and friendly, while callers from the Business Associates and Colleagues caller group (10) will hear a more formal and more professional audible message (14). This facility will allow a greater degree of flexibility and convenience and allows the subscriber (2) to customise his voice messaging facility (6) for greater efficiency relative to known prior art systems.

25

The voice messaging facility described above enables the telecommunication subscriber (2) to operate his telecommunication handset (7) in a way that is less intrusive than that associated with prior art equivalents. In particular, the telecommunication network (1) can be caused to automatically divert to the voice messaging facility (6) any incoming call that does not originate from an entry in the subscriber's stored telephone directory (4). In order to minimise intrusion for the subscriber (2), such calls can be automatically diverted to the voice messaging facility

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- 5 (6) without causing the subscriber's mobile telecommunication handset (7) to ring, and without causing the caller (15) to hear a corresponding ringing tone on the caller's telecommunication handset (16).

10 The subscriber (2) is also able to selectively divert incoming calls from callers in any one or more of the caller groups (8,9,10) to the voice messaging facility (6), without causing the telecommunication handset (7) of the subscriber (2) to ring and without causing the caller to hear a corresponding ringing tone on the caller's telecommunication handset. As an illustrative example of this feature, when the subscriber (2) is at home and wishes to receive calls only from the Family and Friends
15 caller groups (8,9), the subscriber (2) may, by means of his mobile telecommunication handset (7), instruct the telecommunication network (1) to divert all incoming calls from any other caller group to the voice messaging facility (6) without ringing, as described above. Callers belonging to the caller groups that are diverted will hear audible messages corresponding to their particular caller groups, as described above.

20

Numerous modifications are possible to this embodiment without departing from the scope of the invention. For example, certain telecommunication networks may enable the subscriber's telephone directory to be stored in a storage memory associated with the subscriber's handset instead of in a repository provided by an operator of the
25 telecommunication network. Still further, the potential callers in the subscriber's telephone directory may be classified according to a multi-level classification instead of the single-level classification described above. Thus, for example, a personalised audible message can be provided for an or each individual caller.

- 30 The invention therefore provides a voice messaging facility which is easily configurable yet offers increased versatility relative to know prior art equivalents.

5 CLAIMS

1. A method of administering a voice messaging facility associated with a telecommunication subscriber, including the steps of:
establishing a stored telephone directory of potential callers to the telecommunication
10 subscriber;
categorising the potential callers in the stored telephone directory into a plurality of caller groups; and
providing a different audible message corresponding to each caller group, each one of the different audible messages being activatable when an incoming call from any one
15 of the potential callers in the corresponding caller group is diverted to the voice messaging facility.
2. A method of administering a voice messaging facility as claimed in claim 1 in which one of the caller groups relates to family of the telecommunication subscriber.
20
3. A method of administering a voice messaging facility as claimed in claim 1 or claim 2 in which one of the caller groups relates to friends of the telecommunication subscriber.
- 25 4. A method of administering a voice messaging facility as claimed in any one of the preceding claims in which one of the caller groups relates to business associates and colleagues of the telecommunication subscriber.
5. A method of administering a voice messaging facility as claimed in any one of the
30 preceding claims in which any incoming call which does not originate from a potential caller in the stored telephone directory is automatically diverted to the voice messaging facility.
6. A method of administering a voice messaging facility as claimed in any one of the
35 preceding claims in which any incoming call which does not originate from a potential

5 caller in the stored telephone directory is automatically diverted to the voice
messaging facility without causing the telecommunication handset of the
telecommunication subscriber to ring.

7. A method of administering a voice messaging facility as claimed in any one of the
10 preceding claims in which any incoming call which does not originate from a potential
caller in the stored telephone directory is automatically diverted to the voice
messaging facility without causing a caller to hear a corresponding ringing tone on the
caller's telecommunication handset.

15 8. A method of administering a voice messaging facility as claimed in any one of the
preceding claims in which incoming calls from callers in any one or more of the caller
groups are selectively diverted to the voice messaging facility without causing the
telecommunication handset of the telecommunication subscriber during.

20 9. A method of administering a voice messaging facility as claimed in claim 8 in
which an incoming call is selectively diverted to the voice messaging facility without
causing the caller to hear a corresponding ringing tone on the caller's
telecommunication handset.

25 10. A telecommunication network characterised in that it includes for a
telecommunication subscriber a stored telephone directory of potential callers to the
telecommunication subscriber with the potential callers categorised into a plurality of
caller groups, and having a messaging facility wherein a different audible message
can be associated with each caller group, the associated audible message being
30 activatable when an incoming call from any one of the potential callers in the
corresponding caller group is diverted to the voice messaging facility.

11. A telecommunication network as claimed in claim 10 in which one of the caller
groups relates to family of the telecommunication subscriber.

5 12. A telecommunication network as claimed in claim 10 or claim 11 in which one of the caller groups relates to friends of the telecommunication subscriber.

13. A telecommunication network as claimed in any one of claims 10 to 12 in which one of the caller groups relates to business associates and colleagues of the
10 telecommunication subscriber.

14. A telecommunication network as claimed in any one of claims 10 to 13 in which any incoming call which does not originate from a potential caller in the stored telephone directory is automatically diverted to the voice messaging facility.
15

15. A telecommunication network as claimed in any one of claims 10 to 14 in which any incoming call which does not originate from a potential caller in the stored telephone directory is automatically diverted to the voice messaging facility without causing the telecommunication handset of the telecommunication subscriber to ring.
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16. A telecommunication network as claimed in any one of claims 10 to 15 in which any incoming call which does not originate from a potential caller in the stored telephone directory is automatically diverted to the voice messaging facility without causing a caller to hear a corresponding ringing tone on the caller's
25 telecommunication handset.

17. A telecommunication network as claimed in any one of claims 10 to 16 in which incoming calls from callers in any one or more of the caller groups are selectively diverted to the voice messaging facility without causing the telecommunication
30 handset of the telecommunication subscriber during.

18. A telecommunication network as claimed in claim 17 in which an incoming call is selectively diverted to the voice messaging facility without causing the caller to hear a corresponding ringing tone on the caller's telecommunication handset.
35

5 19. A telecommunication network as claimed in any one of claims 10 to 18 in which the network is a mobile telecommunication network.

10 20. A method of administering a voice messaging facility substantially as herein described and as illustrated with reference to Figure 1.

21. A telecommunication network substantially as herein described and as illustrated with reference to Figure 1.

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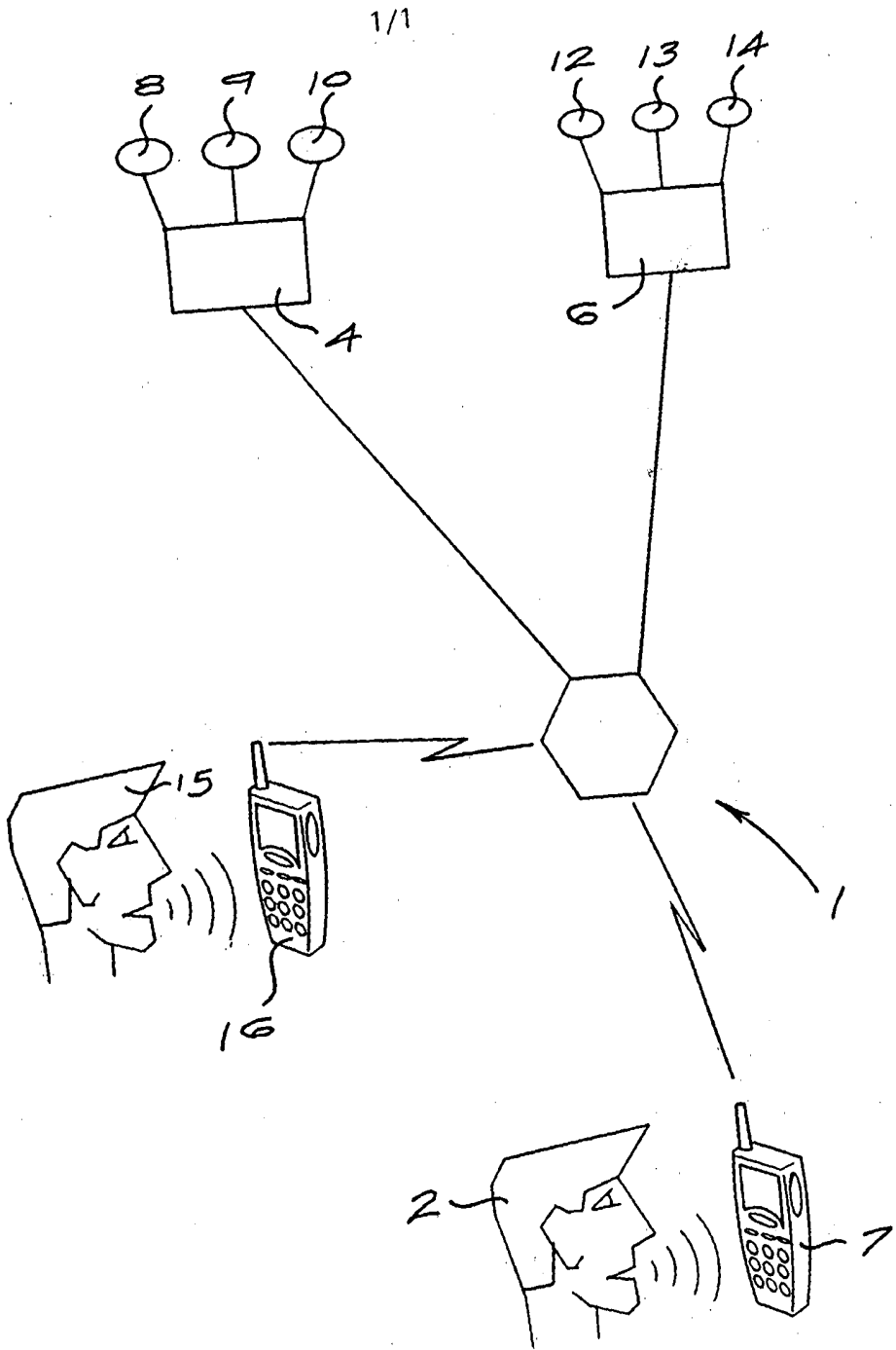


FIG 1