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**Datasheet for the decision
of 14 January 2014**

Case Number: T 0863/11 - 3.5.03

Application Number: 01911902.3

Publication Number: 1264467

IPC: H04M1/27, H04Q3/66

Language of the proceedings: EN

Title of invention:

Telephone call dialling

Applicant:

Interoute Communications Limited

Headword:

Telephone call dialling/INTERROUTE

Relevant legal provisions:

EPC Art. 56

Keyword:

Inventive step - (yes)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: T 0863/11 - 3.5.03

D E C I S I O N
of Technical Board of Appeal 3.5.03
of 14 January 2014

Appellant: Interoute Communications Limited
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Decision under appeal: **Decision of the Examining Division of the European Patent Office posted on 18 November 2010 refusing European patent application No. 01911902.3 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: F. van der Voort
Members: T. Snell
M.-B. Tardo-Dino

Summary of Facts and Submissions

- I. This appeal is against the decision of the examining division refusing European patent application No. 01911902.3, with International Publication Number WO 01/69896 A1.

The refusal (issued in the form of a so-called "decision according to the state of the file" making reference to an earlier communication) was based on the ground that the subject-matter of independent claims 1 and 11 of the only request did not involve an inventive step pursuant to Article 52(1) in combination with Article 56 EPC.

- II. The communication setting out the ground for the decision mentions the following documents:

D1: EP 0693859 A
D2: US 5953657 A
D3: WO 99/11050 A
D4: GB 2298335 A
D5: WO 99/04578 A

- III. The applicant filed a notice of appeal against the above decision and requested that "the decision be cancelled entirely". New sets of claims of a main request and an auxiliary request were subsequently filed with the statement of grounds of appeal.

Oral proceedings were conditionally requested.

- IV. In a communication accompanying a summons to oral proceedings, the board gave a preliminary opinion that the subject-matter of claims 1 and 11 of both requests

did not involve an inventive step in the light of the disclosure of document D5.

- V. In response to the board's communication, the appellant filed new claims of a main request and first and second auxiliary requests, together with supporting arguments.
- VI. Oral proceedings took place on 14 January 2014.

The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the set of claims of the main request, or of either the first or second auxiliary request, all as filed with the letter dated 10 January 2014.

After due deliberation, the chairman announced the board's decision.

- VII. Claim 1 of the appellant's **main request** reads as follows:

"A mobile telephone (20) for making a telephone call to a call destination terminal (2) via a telecommunications system (3) comprising a plurality of networks, the mobile telephone (20) for wireless communication with a mobile telephone network (21) of the telecommunications system (3), the mobile telephone (20) comprising;
input means (5) for receiving from a user input data (52) defining a call destination telephone number of the call destination terminal;
message generating means (30) for generating a request message (51-55) comprising the call destination telephone number;
output means (39) operable to output the request message to a control centre (7) via the

telecommunication system;
receiving means (39) operable to receive from the control centre a response message (61-64) comprising routing data (62) defining a preferred route to be used in routing the call to the call destination terminal via the telecommunications system via a preferred one of a number of possible routes defined by interconnection between the networks available within the telecommunications system; and
initiating means for initiating communication with the call destination terminal using the routing data received in the response message to initiate said telephone call to said call destination terminal wherein the routing data is representative of a prefix code and wherein the initiating means comprises means for adding the prefix code to the call destination telephone number to obtain a modified telephone number used by said initiating means."

Claim 10 of the **main request** reads as follows:

"A method of operating a mobile telephone for making telephone calls to a call destination terminal via a telecommunications system comprising a plurality of networks, the mobile telephone for wireless communication with a mobile telephone network of the telecommunications system, the method comprising the mobile telephone performing the steps of;
receiving from a user input data (52) defining a call destination telephone number of the call destination terminal;
generating a request message (51-55) comprising the call destination telephone number;
outputting the request message to a control centre (7) via the telecommunications system;
receiving a response message (61-64) from the

control centre, the response message comprising routing data (62) defining a preferred route to be used in routing the call to the call destination telephone number via the telecommunications system via a preferred one of a number of possible routes defined by interconnection between the networks available within the telecommunications system; and initiating connection to the call destination terminal using the routing data received in the response message to thereby initiate said telephone call to said call destination; wherein the routing data is representative of a prefix code and wherein the initiating step comprises adding the prefix code to the call destination telephone number to obtain a modified telephone number used in initiating connection to the call destination terminal."

In view of the board's decision, there is no need to reproduce the text of the claims of the **auxiliary requests**.

Reasons for the Decision

1. Main Request - amendments

- 1.1 Claim 1 of the main request incorporates a minor amendment with respect to claim 1 on which the impugned decision was based. In essence, instead of being a claim for an apparatus for making a telephone call, the claim is directed to a mobile telephone for wireless communication with a mobile telephone network.

This amendment is supported by the application as filed, cf. page 8, line 27 ff. and Fig. 2, and consequently complies with Article 123(2) EPC.

1.2 Independent claim 10, which corresponds to independent claim 11 on which the impugned decision was based, includes a corresponding amendment which hence complies, *mutatis mutandis*, with Article 123(2) EPC.

2. *Main request - clarity*

In the board's view, independent claims 1 and 10 are clear within the meaning of Article 84 EPC. Noting that this was apparently not in dispute in respect of the final set of claims presented to the examining division, there is no need to consider the matter further.

3. *Main request - inventive step*

3.1 The present invention concerns call routing via a preferred route. As stated in the description (cf. page 1, lines 22-27), it was known in the prior art for a user to access facilities of a selected service provider by adding a prefix to the call destination telephone number, eg in order to route the call via a network operator offering a lower tariff. This prefix was entered manually by the user of the phone prior to entering the digits of the telephone number.

3.2 The invention relates to an improved method of call routing using such prefix codes. The basic idea underlying the present invention as claimed in claim 1 is that once the user has entered a destination telephone number, the mobile telephone outputs a request message to a control centre via the telecommunication system, and receives from the control centre a response message comprising routing data in the form of a prefix code defining a preferred route.

- Initiating means in the phone add the prefix code to the call destination number in order to initiate communication with the call destination terminal via the preferred route. In other words, the call procedure is automated by obtaining routing data from a control centre in the network.
- 3.3 The closest prior art is considered to be document D5 which discloses a telephone which automatically routes a call via a preferred route by adding a prefix code to the number input by the user (cf. page 8, line 16 - page 9, line 6 and page 17, lines 19-26). To this end, the telephone of D5 includes an internal look-up table which stores routing prefix codes (cf. page 17, lines 19-26). The phone includes receiving means for receiving periodic updates of the routing data from the network (cf. page 10, lines 20-25). The phone may be a mobile GSM phone, in which case the memory may be updated using the cell broadcast feature, by means of which short messages can be sent to all telephones in a geographical area (cf. page 32, line 22ff.).
- 3.4 The subject-matter of claim 1 differs from the disclosure of D5 essentially in that it includes means for sending a request message to obtain routing data from a control centre when a call is made by a user, rather than obtaining the routing data from a look-up table stored in the telephone. In other words, the routing data is stored centrally in the network rather than locally in the mobile phone.
- 3.5 The technical effects of this difference are various. One effect is that the amount of data storage required in the mobile telephone is reduced. A further effect is that the nature of the data traffic required for communicating the routing data is changed, namely

instead of periodic data downloads to all mobile phones simultaneously (D5), a single request/response is made each time a call is made. This could be more or less advantageous depending on the number of calls made and the number of phones to be updated. A further effect is that the call set-up time would be increased by making a request to a control centre. The appellant also argued that a request made at the time of making a call was potentially more up-to-date than the data held in the look-up table of the mobile phone.

3.6 The board has to consider whether it would have been obvious for the skilled person starting out from the mobile telephone of D5 to replace the local look-up table querying method by remote querying of a control centre, eg in order to achieve one or more of the above technical effects.

3.7 The board takes the view that in the present case the invention would not have been obvious for the person skilled in the art at the priority date without the benefit of hindsight. In the first place, D5 does not contain any kind of pointer to a system based on consulting a central database. Although it is true, as acknowledged by the appellant, that it was commonplace in communications networks to make use of a central database as an alternative to a network of distributed data bases, the situation here is more complex because of the various consequences, potentially both positive and negative, of replacing the look-up tables by a process of requesting routing information from a remotely located control centre. The board also attaches weight to the fact that the essential concept underlying the solution of D5 is based on the use of look-up tables located in or in close proximity to the terminal equipment. In this respect, significant parts

of D5 are concerned with methods for updating the look-up tables (cf. eg page 11, lines 5-24, page 14, line 13 to page 14, line 12, page 32, line 23 to page 33, line 6, page 39, lines 7-18), and with the internal structure of the look-up tables (cf. page 15, line 14 to page 17, line 26). The skilled person would in the board's view require a very powerful incentive to consider abandoning such an essential feature of the routing method of D5; the board can identify no such powerful incentive in the present case. Consequently, to conclude that the skilled person would have substituted the completely different technical approach of D5 by the claimed solution would be based on an ex-post facto analysis.

- 3.8 Further, the claimed solution is also not rendered obvious by combining D5 with any of the documents D1-D4 on file:
 - 3.8.1 D1 does not disclose the above identified distinguishing feature with respect to D5, as will be explained in greater detail below (cf. point 4).
 - 3.8.2 D2 describes a method for redirecting (ie forwarding or redialling) a call placed by a caller pA to a called party pB to one of a set of so called terminal C addresses associated with alternative terminals belonging to pB (cf. col. 1, lines 16-30, and col. 5, lines 35-41). A short preparatory call is made, to which pB, or a network node associated with B responds by sending the terminal C addresses (cf. col. 5, lines 41-50) back to pA. Redialling is performed by pA, or a service node near pA, which may be automatic (cf. col. 5, lines 50-55).

Although D2 discloses automatic redialling following a call to a remote network node, the board considers that call redirecting is a different problem to that solved by the present invention. The present invention involves routing via preferred routes defined by a prefix code which is independent of the preferences of the called party whereas the forwarding number information ("C addresses") is pre-registered by the called party (cf. col. 2, lines 16-22, and col. 8, lines 45-47). As the C addresses are stored by the called party or a network node associated with it, it is logical for the caller to have to make a remote call ("preparatory call") to obtain this information, since it would be unfeasible to store the C addresses in all potential calling terminals. Consequently, the skilled person starting out from D5 would not be taught by D2 to replace the querying of a local look-up table by querying of a remotely located control centre without the benefit of hindsight.

D3 and D4 both describe an apparatus for adding a prefix to a number dialled by a user, and thus concern the same general problem to which D5 and the present application are directed, namely the automatic routing of calls via a preferred network (cf. D3, page 3, line 20 - page 4, line 9, and page 4, lines 21-32; D4, page 1, lines 8-24, and page 2, lines 14-21). However, like D5, both D3 and D4 disclose a solution based on updating prefix data stored in the subscriber apparatus (cf. D3, page 6, lines 1-8; D4, page 3, lines 3-21). There is no disclosure in either document of a request message for obtaining the prefix data from the network when a user dials a call. Hence, these documents add nothing to D5.

4. *Inventive step starting out from document D1*

4.1 The examining division in its impugned decision attacked independent claims 1 and 11 (corresponding to present claim 10) starting out from document D1 as closest prior art.

4.2 D1 is concerned with the routing of calls via a so-called intelligent network. When a number requiring special routing, eg an 0800 number, is input by a user, it is recognised by the local originating switch, which routes such calls either by querying its own cache memory 114-1, or by communicating with a database 112 in a service control point SCP (cf. col. 4, lines 10-20 and col. 5, lines 39-45). The destination number to which the call is to be routed is ascertained and used to route the call through the network (cf. col. 5, lines 46-52). In accordance with D1, such calls originate from an "intelligent terminal" 101 which, when a call is made to such a number, also sends a message requesting the downloading of the actual destination number (cf. col. 5, lines 25-28), which it stores for use in routing future calls to the same 0800 number (cf. col. 2, lines 35-40). The current call is however routed by the local switch (cf. col. 2, lines 32-35). This download request is not restricted to the processing of special numbers, but may be made for all calls (cf. col. 5, lines 28-29). In a further embodiment, the information downloaded may comprise routing information so that subsequent calls may be optimally routed over diverse types of networks (cf. col. 9, line 53 - col. 10, line 1). Routing information may include a prefix as shown by the example given in col. 9, lines 35-44.

4.3 The subject-matter of claim 1 differs from the disclosure of D1 essentially in that in D1, the mobile telephone (ie the "intelligent terminal") does not use the routing data obtained in response to the download request to the local switch/SCP for processing the current call (cf. claim 1: "initiating means for initiating communication with the call destination terminal using the routing data received in the response message to initiate said telephone call to said destination terminal" (board's underlining)), but, as stated above, only for subsequent calls.

4.4 The skilled person starting out from D1 would however have no incentive to modify the method of D1 by initiating the call from the intelligent terminal using the downloaded destination number for the current call, as this would merely delay call set-up and, since the local switch already has the destination number, would make no technical sense.

The board concludes that it would not be obvious to arrive at the subject-matter of claim 1 starting out from D1 either.

4.5 For the above reasons, the board concludes that the subject-matter of claim 1 involves an inventive step having regard to the documents at the disposal of the board (Articles 52(1) and 56 EPC).

4.6 The same conclusion applies, *mutatis mutandis*, to independent method claim 10.

5. *Auxiliary requests*

In view of the board's positive conclusion with respect to claims 1 and 10 of the main request, there is no need to consider the auxiliary requests.

6. *Conclusion*

The board concludes that the subject-matter of claims 1 and 10 of the main request involves an inventive step having regard to the disclosure of each of or any combination of documents D1 to D5. The impugned decision is therefore to be set aside. In accordance with Article 111(1) EPC the board considers it appropriate to remit the case to the department of first instance for further prosecution.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance for further prosecution on the basis of claims 1 to 21 of the main request as filed with the letter dated 10 January 2014.

The Registrar:

The Chairman:



G. Rauh

F. van der Voort

Decision electronically authenticated