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Datasheet for the decision of 26 March 2009

Case Number: T 1258/07 - 3.5.03

Application Number: 01976050.3

Publication Number: 1325609

IPC: H04M 3/42

Language of the proceedings: EN

Title of invention:
Telecommunication network and method of operating the network

Applicant:
Dansk Mobiltelefon I/S

Opponent:
-

Headword:
Telecommunication network/DANSK MOBILTELEFON

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):
-

Keyword:
"Inventive step (no)"

Decisions cited:
-

Catchword:
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Case Number: T 1258/07 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 26 March 2009

Appellant: Dansk Mobiltelefon I/S
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Decision under appeal: **Decision of the examining division of the European Patent Office posted 6 February 2007 refusing European application No. 01976050.3 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: A. Madenach
Members: F. van der Voort
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. 01976050.3, which was published under the PCT with publication number WO 02/32094 A, on the ground that the subject-matter of the claims of a main request and five auxiliary requests lacked an inventive step (Articles 52(1) and 56 EPC).

II. The following documents which were referred to in the decision under appeal are relevant to the present decision:

D2: US 5 742 905 A;

D3: WO 94/06236 A:

D4: EP 0 526 764 A; and

D5: US 5 596 633 A.

III. In the statement of grounds of appeal the appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the claims of any one of the main request and the first to fifth auxiliary requests as refused by the examining division. Arguments in support were also submitted. Oral proceedings were conditionally requested.

IV. In a communication annexed to a summons to oral proceedings the board raised, without prejudice to its final decision, objections under Articles 84 and 123(2) EPC and Article 52(1) in combination with Article 56

EPC. The board considered, *inter alia*, that the term "virtual" in "virtual telecommunication network" in claim 1 of the main request did not have a precise meaning within the relevant field. Further, it was not clear in what sense the "at least two different telecommunication networks" were different (e.g. size or location, fixed or cellular, analog or digital, voice or data, etc.).

V. In preparation for the oral proceedings, the appellant filed with a letter dated 26 February 2009 an amended fifth auxiliary request and two further auxiliary requests, i.e. a sixth and a seventh auxiliary request, and presented arguments in support of these requests.

VI. Oral proceedings were held on 26 March 2009 in the course of which the appellant submitted an eighth auxiliary request and withdrew the second, third, sixth and seventh auxiliary requests.

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, alternatively, on the basis of the set of claims of the first or the fourth auxiliary request as referred to in the statement of grounds of appeal or, alternatively, on the basis of the set of claims of the fifth auxiliary request as filed with the letter dated 26 February 2009 or, alternatively, on the basis of the set of claims of the eighth auxiliary request as filed during the oral proceedings.

At the end of the oral proceedings the board's decision was announced.

VII. Claim 1 of the main request reads as follows:

"Virtual telecommunication network (VN)
said virtual telecommunication network (VN) being formed by a group of subscribers (SxTN1.....;VNS) of at least two different telecommunication networks (TN1, TN2),
said virtual telecommunication network (VN) comprising availability measuring means (AMM),
said availability measuring means (AMM) being adapted to establishing availability estimates (AE) of at least one of the virtual network subscribers (VNS) in said at least two different telecommunication networks (TN1, TN2) on the basis of control signals (TN1CS; TNC2S) provided by the control systems (TN1C; TNC2) of the said at least two telecommunication networks (TN1, TN2),
said availability measuring means (AMM) comprising interfacing means (IM) for interfacing said availability estimates (AE) to users of the virtual telecommunication network (VN),
wherein at least one of said telecommunication networks (TN1, TN2) comprises a cellular telecommunication network,
wherein said interfacing means (IM) comprises at least one operator interface (OI) and wherein said availability estimates (AE) are updated according to update routines (UR)."

Claim 1 of the first auxiliary request is identical to claim 1 of the main request, except that it further includes the following feature:

"said operator interface (OI) comprises means for establishment of monitoring signals (MS) representing availability estimates (AE) related to virtual network subscribers (VNS)."

Claim 1 of the fourth auxiliary request is identical to claim 1 of the first auxiliary request, except that it further includes the following features:

"wherein said virtual telecommunication network (VN) comprises routing means (RM) for routing an incoming call (IC) to at least one of the said virtual network subscribers (VNS) according to the established availability estimates (AE) and
wherein routing routines (RR) are adapted for execution by at least one operator by means of said operator interface (OI)."

Claim 1 of the fifth auxiliary request is identical to claim 1 of the fourth auxiliary request, except that it further includes the following feature:

"the operator interface comprises display means (DM) for displaying the availability status of the subscribers (S1,..,S4) managed by said operator interface."

Claim 1 of the eighth auxiliary request differs from claim 1 of the fifth auxiliary request only in that "a list of" is inserted between "for displaying" and "the availability status of the subscribers".

Reasons for the Decision

1. *Interpretation of claim 1*

1.1 The clarity objections raised in the board's communication (see point IV above) apply to claim 1 of each one of the main request and the pending auxiliary requests. However, in the board's view, the unclear wording referred to does not completely deprive the claim of a technical meaning as understood by a person skilled in the art and does not render an inventive step assessment impossible. For this assessment, the board will broadly interpret the wording "virtual telecommunication network being formed by a group of subscribers of at least two different telecommunication networks" in the context of claim 1 of each request as meaning a telecommunication network system which comprises at least two telecommunication networks, in which the telecommunication networks are merged as if there were one telecommunication network for all subscribers. This interpretation is also in accordance with the description, see the application as published, page 4, lines 25 to 30, and page 38, lines 22 to 25.

1.2 The board further notes that in claim 1 of each request reference is made to both "subscribers" and "users". In accordance with the description, page 6, lines 20 to 24, and page 57, line 2, the term "users" is interpreted to include an operator.

2. *Inventive step (claim 1 of the main request)*

2.1 Both in the statement of grounds of appeal and at the oral proceedings the appellant considered D5 to represent the closest prior art.

2.2 D5 discloses, using the language of claim 1 of the main request, a telecommunication network system 1 (Fig. 1) which includes a telecommunication network 3, 11, 13, 15, 15A, 17 and 19 and availability measuring means, i.e. microprocessors 5 and 23, detectors 21 and 39 (Fig. 4) and database 25, adapted to establish availability estimates, i.e. presence, of at least one of the subscribers in the telecommunication network on the basis of a control signal provided by a control system of the telecommunication network, i.e. message switch 9 and peripheral control 13, see col. 2, lines 52 to 62. The availability measuring means include interfacing means which include an operator interface for interfacing the availability estimates, i.e. the return or the arrival of a called person, to an operator of the telecommunication network system (col. 3, lines 20 to 35 and 39 to 45). The availability estimates may be updated according to update routines (col. 3, lines 20 to 24 and 39 to 42).

2.3 The subject-matter of claim 1 of the main request differs from the system disclosed in D5 in that according to claim 1 the telecommunication network system comprises at least one further telecommunication network which comprises a cellular telecommunication network and which includes a control system for providing control signals on the basis of which availability estimates can be established.

2.4 A technical effect which is thereby achieved is that the claimed telecommunication network system is capable of handling, in addition to calls within the fixed telecommunication network as disclosed in D5, calls to a mobile phone in a cellular telecommunication network.

2.5 The objective technical problem to be solved when starting out from D5 could therefore be seen in making the telecommunication system of D5 additionally suitable for use with a cellular telecommunication network.

2.6 The formulation of this problem does not contribute to an inventive step. At the priority date cellular telecommunication networks including mobile telephones were well-known (see, e.g., D2, col. 1, lines 15 to 20, or D4, col. 1, lines 4 to 15), which was not contested by the appellant. Further, in the board's view, if the system of D5 were to be used in, e.g., a company (see D5, col. 4, line 11), in which at least some of the employees were equipped with a mobile telephone, it would have been evidently desirable, once it was determined that a called employee was not present and, hence, unreachable within the fixed network, to be able to route the call to the employee's mobile telephone.

2.7 The appellant argued that it would not have been obvious to include a cellular network in the system of D5. In particular, the system of D5 was concerned with a local system of fixed telephone lines and involved an operator at a switchboard, in which the presence of a called party within a defined local area was determined by means of a subscriber presence detector in order to

be able to successfully route an incoming call to that party. By contrast, a public cellular network had a high number of subscribers, in which the subscribers could be almost anywhere. D5 did not give any hint to couple an incoming call to a public switched telecommunication network when everything else in the system was a local system and utilized as a local system. The appellant further argued that, in any case, if a cellular network were to be included in the system of D5, it would have been applied merely as an add-on in the sense that information regarding availability had to be checked on a case-by-case basis upon request, e.g. by the operator dialling or providing the calling party with the mobile telephone number of the called party, whereas the availability estimates of the subscribers in the fixed network would always have been monitored and updated according to the update routines. The calling of a mobile telephone number would therefore have given rise to an increase in the "post delay time", i.e. the time a calling party must typically wait before he/she is connected, whereas the aim of the present invention was to reduce the post delay time or to provide a dynamic telecommunication network in which a user may obtain information regarding subscribers only after a short delay. Alternatively, if a cellular network were to be included in the system of D5, it would have been necessary to somehow detect for each subscriber in the cellular network whether or not the subscriber was adjacent to his/her mobile telephone, which in view of the high number of subscribers in a cellular network would clearly have been a difficult task for the operator.

2.8 The board does not find these arguments convincing for the following reasons.

The aim of the system of D5 is to overcome the problem that, if a subscriber is absent from his usual location adjacent to a telephone set and forgets to inform, e.g., the operator of his absence, incoming calls to the telephone line will cause the telephone set to ring for an extended period of time, thereby annoying other persons (D5, col. 1, lines 14 to 25). The caller's time would also be wasted if the incoming call were directed to various hunt groups which do not answer after ringing a predetermined number of times (col. 1, lines 26 to 33, and col. 3, lines 56 to 65). These problems are overcome in D5 by providing a system which detects in advance the presence of a person adjacent to a telephone and which directly routes calls to that telephone.

If an availability estimate of a called person at a mobile telephone of a cellular network were to be incorporated in the system of D5 such that the availability estimate is also established in advance, it would not be sufficient to check availability on a case-by-case basis upon request, as argued by the appellant, since this would again increase the waiting time for the caller.

The board notes, however, that according to a preferred embodiment of the system of D5, whether or not a person, who is equipped with a portable telephone 37 (Fig. 4), is available is determined in advance on the basis of whether or not the person has pushed a button on the portable telephone and thereby enabled a

transmitter inside the portable telephone to transmit a signal which is detected by a detector 39. The detector, in turn, provides the "subscriber present" signal to the switching system 1 via the telephone line 19 (see col. 4, lines 25 to 28 and 45 to 51, and Fig. 4).

In the board's view, it would be obvious to a person skilled in the art that the switching on of the transmitter of the portable telephone in order to signal availability in the fixed network corresponds to the switching on of a mobile telephone, since this causes, in a well-known manner, the mobile telephone to be registered by the control system of the cellular network and, hence, reachable (see, e.g., D3, page 11, lines 19 to 27, or D4, col. 1, lines 10 to 15, and col. 2, lines 13 to 16).

The board agrees that a cellular network may be a public network which includes a high number of subscribers. However, this would not keep the skilled person from incorporating availability estimates of mobile telephones of a cellular network in the system of D5, since the availability estimates would only be required for a limited number of subscribers, e.g. in a company only a certain number of employees who are equipped with a mobile telephone. In any case, the board notes that claim 1 of the main request does not include any technical feature which relates to the manner in which the availability estimates of specifically the subscribers of the cellular telecommunication network are determined.

2.9 A person skilled in the art would therefore, merely by using his/her common general knowledge, i.e. without exercising inventive skill, have arrived at a telecommunication network system which includes all the features of claim 1 of the main request.

2.10 The board therefore concludes that the subject-matter of claim 1 of the main request does not involve an inventive step (Articles 52(1) and 56 EPC).

3. *Inventive step (claim 1 of the auxiliary requests)*

3.1 D5 further discloses that the operator interface may include means for establishment of monitoring signals representing availability estimates related to network subscribers, see col. 3, lines 32 to 35, "by indication on a terminal screen that the subscriber has returned", in which the terminal screen constitutes display means for displaying the availability status of the subscribers managed by the operator interface. Further, the known system includes routing means for routing an incoming call to at least one of the network subscribers according to the established availability estimates, see col. 2, line 63, to col. 3, line 19.

3.2 Since the system of D5 is capable of indicating to the operator which of the subscribers are available to receive calls (see col. 3, lines 43 to 45), it would be obvious to present the availability estimates of these subscribers in the form of a list on the display means. Further, if an incoming call is routed to the operator because the called person is absent (see col. 3, lines 9 to 19), it would be obvious to provide the operator with certain predetermined call forwarding

instructions, i.e. routing routines (e.g. if the calling party is an important client then reroute the call to one of the company's managing directors) which can be executed by means of the operator interface.

3.3 Applying the above features for the same purpose to a telecommunication network system which further includes a cellular telecommunication network does not contribute to an inventive step. The additional features of claim 1 of the first, fourth, fifth, and eighth auxiliary requests (see point VI above) are therefore either known from D5 or obvious having regard to the disclosure of D5.

3.4 In view of the above and the reasons given in respect of claim 1 of the main request, the board concludes that the subject-matter of claim 1 of each one of the first, fourth, fifth, and eighth auxiliary requests does not involve an inventive step (Articles 52(1) and 56 EPC).

4. It follows that none of the requests on file (see point VI above) is allowable.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Magliano A. Madenach