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**Datasheet for the decision
of 8 September 2011**

Case Number: T 0839/08 - 3.4.01

Application Number: 02796713.2

Publication Number: 1456676

IPC: G01R 22/00

Language of the proceedings: EN

Title of invention:

System for remote reading and control of electric energy consumption

Patentee:

Enel Distribuzione S.p.A.

Opponent:

Small, Gary James

Headword:

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Relevant legal provisions:

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Relevant legal provisions (EPC 1973):

EPC Art. 99(1)(4), 56

EPC R. 55(a)

Keyword:

"Admissibility of the opposition (yes)"

"Self representation/strawman"

"Inventive step (yes)"

Decisions cited:

G 0004/97

Catchword:

-



Case Number: T 0839/08 - 3.4.01

D E C I S I O N
of the Technical Board of Appeal 3.4.01
of 8 September 2011

Appellant: Small, Gary James
(Opponent) Carpmæls & Ransford
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Representative: -

Respondent: Enel Distribuzione S.p.A.
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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
18 February 2008 concerning maintenance of
European patent No. 1456676 in amended form.

Composition of the Board:

Chairman: B. Schachenmann
Members: P. Fontenay
G. Assi

Summary of Facts and Submissions

I. European patent No. EP 1 456 676 was granted by a decision dated 18 January 2006. The mention of the grant was published in the European Patent Bulletin 2006/09 on 1 March 2006.

On 27 November 2006, an opposition against the patent was filed by Mr Garry James Small. Mr Small, who is a professional representative, appointed himself, as well as additional representatives at "Carpmaels & Ransford", as representative for this case. The opposition was filed against the patent as a whole and was based on the sole ground of lack of inventive step.

The patentee contested both the admissibility of the opposition and its merits.

In the oral proceedings before the opposition division on 14 December 2007, the opposition division held that the opposition was admissible and decided to maintain the patent in an amended form according to an auxiliary request 3 then on file. The decision was announced during the oral proceedings and dispatched on 18 February 2008.

II. Appellant I (the appellant/patentee) filed a notice of appeal against said decision under cover of a letter dated 28 April 2008 and paid the prescribed appeal fee on the same day. The written statement setting out the grounds of appeal was filed on 27 June 2008.

Appellant I reiterated its request that the opposition be declared inadmissible and requested that the

- decision of the opposition division be set aside and the patent be maintained unamended, i.e. as granted.
- III. In a facsimile dated 28 April 2008, appellant II (the appellant/opponent) filed a notice of appeal against the above decision as well. The prescribed appeal fee was paid on the same day and the statement of grounds was filed on 30 June 2008. Appellant II requested that the decision of the opposition division be set aside and the patent as maintained be revoked.
- IV. In letters dated 24 November 2008 and 5 January 2009, appellant II and appellant I, respectively, filed observations on the statements of grounds filed by the other party. Additional comments were filed by appellant II in a letter dated 22 May 2009.
- V. At their requests, the parties were summoned to attend oral proceedings before the Board of Appeal. The proceedings were held on 8 September 2011, in presence of both the appellant/patentee's representative and the appellant/opponent.

Both parties confirmed their respective requests. The appellant/patentee further indicated that he requested, as an auxiliary request, that the patent be maintained in an amended form according to the decision of the opposition division. In its view, this request formed already part of the notice of appeal since it derived implicitly from the original request to have the decision of the opposition division set aside. The appellant/opponent emphasised that this auxiliary request was clearly late filed and should not be admitted in the appeal proceedings.

VI. The following documents were relied on during the opposition and ensuing appeal procedure:

- D1: US-A-5 986 574;
- D3: US-A-4 638 298;
- D4: US-A-6 100 817;
- D5: US-A-6 044 062;
- D15: US-A-5 874 903.

For the submissions of the parties reference is made to the reasons of present decision.

VII. Claim 1 as granted reads as follows:

"1. System for the remote acquisition of data and for the remote control of the targets of users spread over a vast territory, of the type comprising electricity meters, equipped with means to measure the electric energy consumptions and associated to each user, intermediate stations or concentrators, to each of which a set of meters is connected by first means for the bi-directional transmission of data; said concentrators being in turn all connected to a central control and supervision unit through second means for the bi-directional transmission of data, wherein

- the intelligence of the system is distributed between the central unit, the concentrators and the electricity meters;
- a set of a limited number of electricity meters is

connected downstream of each concentrator, each meter incorporating, in addition to said means to measure the electric energy consumptions: means to transduce the

measured values into measuring data meant to be processed; at least a first processor to process said measuring data; at least a first data memory and a first programme memory, as well as first means for the bi-directional transmission towards the associated concentrator; the output of said first processor being connected to said first data memory and/or to said first bi-directional transmission means, so as to at least temporarily store and/or respectively transmit the data which have already undergone a first processing;

- a plurality of concentrators is connected downstream of the central unit, each concentrator incorporating: at least a second programme memory, at least a second microprocessor for further processing said data processed by the meters, at least a second data memory to store the data issued by said meters and/or by said second microprocessor, as well as second means for the bi-directional transmission towards the central server, the output of said second processor being connected to said second data memory and/or to said second bi-directional transmission means, so as to at least temporarily store and/or respectively transmit said further processed data;

characterized in that said concentrator is adapted to perform a function of automatic identification of a repetition path by detecting one or more electricity meters as an intermediate bridge to an electricity meter that cannot be reached directly by the concentrator."

Claims 2 to 23 are dependent claims.

VIII. In this decision reference is made to the provisions of the EPC 2000, which entered into force as of 13 December 2007, unless the former provisions of the EPC 1973 still apply to pending applications, in which case the evocation of the Article or Rule is followed by the indication "1973".

Reasons for the Decision

1. The appeals meet the requirements of Articles 106 to 108 EPC and Rule 99 EPC. They are thus admissible.
2. *Admissibility of the opposition*
 - 2.1 The appellant/patentee put forward that the identity of the opponent could not be established with certainty before expiry of the opposition period. In its view, an ambiguity resulted from Mr Small being identified in EPO Form 2300 (Notice of Opposition to a European Patent) as the representative of the opponent, together with other professional representatives within the office of "Carpmaels & Ransford", as well as the actual opponent. More specifically, while acknowledging that the decision of the Enlarged Board of Appeal G 4/97 entitled a professional representative to act in his name on behalf of a client, the appellant/patentee emphasised that the present circumstances were fundamentally different from those envisaged in this decision. In the present case, Mr Small was namely also appointed as representative, thus, suggesting that he did not act in his own name but in the name of someone else who was not identified in box III of EPO Form 2300 dedicated to the opponent's identity. In the case that

Mr Small was nevertheless assumed to be an opponent, an ambiguity resulted then from whether all persons listed on the additional sheet for additional representatives were also opponents. It was stressed that this ambiguity concerning the identity of the opponent could not be resolved since the opposition period had expired.

- 2.2 The Board does not exclude that, under certain circumstances, deficiencies with regard to the identity of the representative being appointed may indeed throw doubts on the statement concerning the identity of the person actually filing the opposition, which, otherwise, would have been considered fully satisfactory.

In the Board's judgement, however, the mere fact that Mr Small appointed himself in box IV of EPO Form 2300 as representative together with other professional representatives at "Carpmaels & Ransford" is not sufficient to question the validity of his status as opponent. In this context, as plausibly put forward by Mr Small during the oral proceedings before the Board, the fact that his name also appears in section IV as representative does not, as such, contradict his status as opponent, but merely reflects his intention to represent himself or, in the case he would have been prevented from doing so for any reason, of being represented by any one of the persons listed on the accompanying list. Mr Small further observed, in passing, that EPO Form 2300 does not contain any box which would permit to indicate that the opponent intends to represent himself.

- 2.3 Any assertion that the reproduction in box IV of the name of the opponent is an indication that other

opponents, not identified as such in box III, are involved in the opposition proceedings cannot be accepted without proof. In the Board's view, such an involvement, would not comply with the law, in particular, the dispositions of Article 99(1)(4) and Rule 55(a) EPC 1973. It is, thus, for the party raising such an issue to bear the burden of the proof (cf. G 4/97, point 5). Applied to the present circumstances, it is hence for the appellant/patentee to provide all the elements in support of his allegation that additional opponents are indeed taking part in the present opposition proceedings.

Therefore, in the absence of any tangible evidence that such is presently the case, the Board rejects the submission put forward by the appellant/patentee according to which box III and IV in EPO Form 2300 as originally filed would suffice to establish that the opponent is also acting as representative for other non identified opponents.

- 2.4 Consequently, since Mr Small has clearly been identified as opponent in the notice of opposition filed on 27 November 2006, i.e. within the nine months period from the mention of the grant of the patent in the European Patent Bulletin, and since the appellant/patentee was neither able to establish that the notice of opposition contained contradicting information in this regard nor was able to provide evidence of any attempt by the opponent to circumvent the law, the Board is satisfied that the identity of the opponent has been established beyond any doubt within the opposition period, as required under Article 99(1)(4) and Rule 55(a) EPC 1973.

The Opposition is thus admissible.

3. *Main request - Patent as granted*

3.1 *Inventive step in view of document D1 and document D3*

3.1.1 *Objective problem solved*

As ascertained in the impugned decision, document D1 discloses a system for the remote acquisition of data and for the remote control of the targets of users spread over a vast territory as recited in the pre-characterising portion of granted claim 1. This view was also shared by the appellant/patentee who, however, contested that the claimed subject-matter derived in an obvious manner from a combination of the prior art documents D1 and D3.

The claimed subject-matter differs from the system known from D1 in that the concentrator is adapted to perform a function of automatic identification of a repetition path by detecting one or more electricity meters as an intermediate bridge to an electricity meter that cannot be reached directly by the concentrator, as recited in the characterising portion of claim 1.

During the oral proceedings before the Board, the appellant/patentee reiterated its view according to which the objective technical problem defined by the opposition division, which consisted in improving the reachability of non-reachable meters, was "deficient". In its opinion, the actual problem underlying the

claimed invention consisted in adapting a system of the kind known from D1 such that the number of meters could be increased significantly while the communication overhead in the system remained sufficiently low for a practically feasible implementation. Particular reference was made to the last paragraph on page 2 and the first paragraph on page 3 of the published application in which emphasis is put on the fact that the system according to the invention is intended to cover a vast territory and that the problem to be solved is accordingly directly associated to this aspect.

The Board is not convinced by this approach which does not focus on the distinguishing feature of the invention to define the objective problem actually solved by the invention but on general statements relating to the invention as it was initially defined in original claim 1. It is observed, in this respect, that this former definition of the invention now corresponds to the preamble of granted claim 1 and that the statements in the original disclosure actually relating to the characterising and distinguishing feature of the invention are to be found in paragraphs 23 and 24 on page 19 and 20 of the published application.

These paragraphs read: "*23. Distant meters reachability. The PLC communication method uses a physical support (electric line) that does not guarantee homogeneous conduction of the signal in every point of the network, for which reason meters may not be reachable by the concentrator. Therefore, the concentrator may require one or more meters (which are*

able "see" [sic] the non-reachable meter) to act as bridges, forwarding the message to the non-reachable meter. It is indeed a repetition mechanism, which allows to solve the problem of reachability via network.

24. Automatic recognition of the repetition path. When informed of the presence of a new meter, the concentrator checks its reachability. If it is not reachable, it tries to detect one or more different meters that can "see" the non-directly reachable meter. These meters are detected, the detecting parameters stored, and then subsequently used as an intermediate bridge."

The information contained in these two paragraphs thus explicitly establishes that the aspect of reachability is indeed fundamental, insofar as the features of a repetition path and intermediate bridge are concerned. The Board has no doubt that this functionality of the system indeed permits to increase the number of meters within the system, as underlined by the appellant/patentee, but notes that this effect is subordinate to the first aspect regarding improved reachability. As a matter of fact, the statement contained in paragraph 24 according to which "*If it is not reachable, it tries to detect one or more different meters that can "see" the non-directly reachable meter*" suggests that the sole aspect really relevant concerns the possibility of a (direct) connection being established between meter and concentrator; no mention being made of additional limitations as to the number of meters with which the concentrator could communicate.

3.1.2 Non-obviousness of the claimed solution

3.1.2.1 Document D3 pertains to the field of network

communication systems of the kind having a plurality of terminal units communicating via a power distribution network and incorporating message repeating capabilities. Document D3 explicitly refers to remote monitoring of electric energy meters (cf. D3, column 1, lines 17-19; column 2, lines 2-5). Its teaching is thus fully relevant for the skilled person working in the field of the present invention. Since, moreover, document D3 directly addresses the problem of accessibility of certain terminals (cf. column 3, lines 16-20), its teaching would have indeed been considered by the skilled person when seeking a solution to the problem of reachability defined above.

More specifically, document D3 teaches a system for communication between terminal units, such as e.g. power meters (cf. column 2, lines 58-60) which could be joined to a power distribution network (cf. column 3, lines 56-59). According to D3, the terminal units are also capable of functioning as repeaters (cf. column 2, line 61 - column 3, line 13). In a first embodiment of the system, a host unit H serves as a control unit for the terminal units (cf. column 3, lines 14-26) and determines the communication routes necessary to communicate with each of the terminal units constituting the network. According to a second embodiment, in situations where the size of the network and number of units causes the system to be more complex, each individual terminal is provided with the route finding capabilities provided by the host system (cf. column 4, lines 22-29).

3.1.2.2 According to the first embodiment of the system disclosed in D3, the path finding capabilities of the system are all concentrated in the unique host unit H, which appears to control the whole communication over the network. In particular, if communication directly between two units is not available, the message is relayed through the host unit and then out to the intended terminal unit via other terminal units. Applied to the configuration disclosed in document D1, this teaching would imply that it is the control means 12, and not the relay means 14, which would take over the functionalities of the host unit H in D3. The system thus obtained would, however, not provide the characterising feature according to which it is the concentrator which is adapted to perform a function of automatic identification of a repetition path. There is namely no indication to be found, neither in D1 nor in D3, for associating the path finding capabilities of the host unit H of D3 to the intermediate concentrator (relay means 14) of D1.

Consequently, the implementation of the communication system according to the first embodiment of D3 in the system of D1 would not lead to the claimed subject-matter.

3.1.2.3 The Board does also not accept the view according to which the claimed invention derives in a straightforward manner from an adaptation of the system of D1 in the light of the second embodiment disclosed in D3, wherein each meter is equipped with the path finding capabilities of the host unit.

Firstly, the implementation of this configuration in the system of D1 would add to the complexity of the whole system, which is precisely what the present invention seeks to avoid (cf. published description, page 5, line 5 - page 6, line 12). It is indeed an essential aspect of the present invention to distribute the processing power, i.e. the intelligence of the system, between three hierarchical levels so as to achieve a reduced communication load (cf. published description, page 6, line 9). Moreover, as emphasized in the sentence following the evocation in D3 of this second embodiment, the purpose of this alternative configuration is to permit "*each individual terminal unit to find the shortest communication route to any other terminal unit, without necessarily relaying it through the host unit*" (cf. D3, column 4, lines 26-29). Since, in contrast to this, communication needs only be established in D1 between the various hierarchical levels of the system, such direct communication between the various meters distributed in the power network is not required. For these reasons, the skilled person had no reason to consider this alternative embodiment the purpose of which is not directly relevant for the objective problem to be solved.

3.2 Inventive step in view of documents D4/D15 and document D5

3.2.1 Document D4 appears, likewise, to constitute a relevant starting point when deciding on the inventive merits of the granted system. Particular reference is made, in this respect, to the passage in D4, column 6, lines 15-38, and to the content of document D15 referred to in this passage. By explicitly referring to the teaching

of document D15 when describing additional functionalities particularly suited to the system of D4, this paragraph is understood by the skilled reader to *de facto* disclose an embodiment of a communication network the features of which are partly disclosed in document D4 and partly in document D15 and which constitutes prior art in the sense of Article 54 EPC 1973. More specifically, D4/D15 discloses a system including a plurality of utility meters, such as for example electricity meters, in RF communication with a concentrator (node 18), wherein said concentrator is coupled to a main server 20 (cf. D4, column 5, lines 32-41). A protocol is described which makes the RF system adaptive to read hard to access meters within the network. More specifically, in case a node 18 is in the impossibility to reach a specific meter because it is not directly accessible, the information can then be routed through other meters, wherein each meter is provided with the repeating function capability (cf. D4, column 6, lines 22-26; D15, column 5, lines 17-22).

There is no indication to be found, neither in D4 nor in D15, that the concentrator 18 is responsible for automatically identifying a repetition path.

- 3.2.2 The Board concurs with the appellant/opponent in his analysis according to which the objective problem solved by the claimed invention with regard to the teaching of D4/D15 is identical to the one identified above in relation with document D1 which thus consists primarily in improving the reachability of meters which cannot be directly reached by the concentrator.

3.2.3 According to the embodiment disclosed in Figure 20 of document D5 and the corresponding passage of the description in column 22, lines 28-46, it is the terminal unit (client) which first identifies a repetition path which is then communicated to the server. In practice, the data to be transmitted by the terminal unit to the server are combined to a header section which contains a sequence of the addresses of the various terminals through which said data is to be transmitted. When replying to the terminal unit, the server defines its own header in which the order of the addresses is simply reversed.

In the appellant/opponent's view this reversing of the addresses in the header portion by the server constitutes an automatic identification of a repetition path carried out by a unit located at a higher hierarchical level, as actually required by the characterising portion of granted claim 1. It was, in particular, stressed that the claim's wording does not specify the manner according to which the repetition path is determined. This implied, in the appellant/opponent's view, that the system of D4/D15, adapted in the light of the embodiment of Figure 20 in D5 indeed leads to the claimed subject-matter, since the functionality associated to the server in D5 would have necessarily been attributed to the concentrator (node 18) of D4/D15.

This approach is however, rejected, by the Board for the following reasons: Firstly, this analysis fails to take the full measure of the characterising feature in independent claim 1 according to which the *"concentrator is adapted to perform a function of*

*automatic **identification** of a repetition path **by detecting** one or more electricity meters...*" (emphasis added). In this respect, even if it can be accepted that the reversion of the addresses in the header portion of the received message can be equated with an automatic identification of a repetition path, it is not achieved by detecting the meters defining said repetition path, as required by the claim wording, but by mere reversal of the addresses of the repeater units previously detected by the subordinate terminal unit responsible for the initial transmission.

Secondly, the Board holds that the network disclosed in document D5 describes a structure which differs in its very nature from a power network. As emphasized by the appellant/patentee during the oral proceedings, the wireless digital network disclosed in D5 is an ad-hoc network in constant modification. The whole infrastructure and the communication protocols disclosed therein are designed so that communication between any terminal units within the network may always be possible, i.e. at any time. The requirements which are associated with these types of networks are thus fundamentally different from those actually associated with power networks. It is therefore considered that document D5 does not belong to a field of technology which would have been considered by the skilled person when looking for a solution to a problem regarding electricity meters.

- 3.3 It follows from the above considerations that the subject-matter of claim 1 according to the main request, i.e. as granted, involves an inventive step in the sense of Article 56 EPC 1973.

4. *Auxiliary request*

Since the main request of the appellant/patentee is granted, there is no need for the Board to decide on the admissibility and merits of its auxiliary request regarding the maintenance of the patent in an amended form, as considered allowable by the opposition division in its interlocutory decision.

Order

For these reasons it is decided that:

1. The appeal of the appellant/opponent is dismissed.
2. The decision under appeal is set aside. The patent is maintained as granted.

The Registrar

The Chairman

R. Schumacher

B. Schachenmann