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**Datasheet for the decision
of 24 January 2012**

Case Number: T 1265/09 - 3.5.03

Application Number: 98935600.1

Publication Number: 0995300

IPC: H04M 1/72

Language of the proceedings: EN

Title of invention:

Skills-based scheduling for telephone call centers

Patent proprietor:

IEX CORPORATION

Opponent:

InVision Software AG

Headword:

Call center/IEX

Relevant legal provisions:

EPC Art. 56

Relevant legal provisions (EPC 1973):

-

Keyword:

"Inventive step (no)"

Decisions cited:

G 0003/08, T 1173/97, T 0641/00, T 0258/03, T 0424/03,
T 0154/04, T 1284/04, T 1227/05

Catchword:

-



Case Number: T 1265/09 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 24 January 2012

Appellant: InVision Software AG
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Decision under appeal: Decision of the opposition division of the
European Patent Office posted 31 March 2009
rejecting the opposition filed against European
patent No. 0995300 pursuant to Article 101(2)
EPC.

Composition of the Board:

Chairman: A. S. Clelland
Members: F. van der Voort
R. Moufang

Summary of Facts and Submissions

- I. This appeal is against the decision of the opposition division rejecting an opposition filed against European patent No. 0 995 300, which is based on European patent application No. 98935600.1 which was published as international application (PCT/US98/14323) with publication number WO 99/03248 A.
- II. The opposition was filed against the patent as a whole and on the ground that the subject-matter of the European patent was not an invention (Article 52(2) EPC) and did not involve an inventive step (Article 56 EPC), cf. Article 100(a) EPC.
- III. The opponent lodged an appeal against the decision and requested that the impugned decision be set aside and the patent be revoked. Oral proceedings were conditionally requested.
- IV. In response to the statement of grounds of appeal, the respondent (proprietor) requested that the appeal be dismissed. Arguments in support were submitted and oral proceedings were conditionally requested.
- V. The parties were summoned by the board to oral proceedings. In a communication accompanying the summons the board drew attention to issues to be discussed at the oral proceedings.
- VI. In response to the board's communication the appellant submitted further arguments with letters dated 5 August 2011 and 20 December 2011.

With a letter dated 7 December 2011 the respondent submitted further arguments as well as first to third auxiliary requests.

VII. Oral proceedings were held on 24 January 2012.

In the course of the oral proceedings, the appellant withdrew its objection based on Article 100(a) EPC in combination with Article 52(2) EPC, i.e. that the claimed subject-matter was not an invention. In accordance with its written submissions the appellant requested that the decision be set aside and the patent be revoked.

In accordance with its written submissions the respondent requested that the appeal be dismissed (main request) or, in the alternative, that the decision under appeal be set aside and the patent be maintained in amended form on the basis of one of the first to third auxiliary requests as filed with the letter dated 7 December 2011.

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

VIII. Claim 1 of the main request is claim 1 as granted which reads as follows:

"A method, using a computer, of determining an efficient schedule for a plurality of scheduled agents in a telephone call center, each of the plurality of scheduled agents having a combination of defined skills and wherein the plurality of scheduled agents may be organized into skill groups each including all scheduled

agents having a particular combination of skills, comprising the steps of:

(a) generating net staffing data per call type defining, for each time interval to be scheduled, an estimate of a difference between a given staffing level and a staffing level needed to meet a current call handling requirement;

(b) generating skills group availability data per call type defining, for each combination of skill group and time interval to be scheduled, an estimate of a percentage of scheduled agents from each skill group that are available to handle a call;

(c) using the net staffing data and the skills group availability data to generate a schedule for each of the plurality of scheduled agents;

(d) running a call handling simulation against the schedule;

(e) adjusting the net staffing data and the skills availability data as a result of the call handling simulation, and

(f) repeating steps (c)-(e) until a given event occurs."

Claim 1 of the first auxiliary request differs from claim 1 as granted in that, in steps (a) to (f), the terms "generating", "using", "running", "adjusting", and "repeating" are replaced by "having the computer generate", "having the computer use", "having the computer run", "having the computer adjust", and "having the computer repeat", respectively.

Claim 1 of the second auxiliary request reads as follows (amendments as compared to claim 1 of the first auxiliary request underlined by the board):

"A method, using a computer, of determining an efficient schedule for a plurality of scheduled agents in a telephone call center, each of the plurality of scheduled agents having a combination of defined skills and wherein the plurality of scheduled agents may be organized into skill groups each including all scheduled agents having a particular combination of skills, comprising the steps of:

(a) having the computer generate a plurality of net staffing arrays, each net staff array associated with a given call type and defining, for each time interval to be scheduled, an estimate of a difference between a given staffing level and a staffing level needed to meet a current call handling requirement;

(b) having the computer generate a plurality of skills group availability arrays, each skills group availability array associated with the given call type and defining, for each combination of skill group and time interval to be scheduled, an estimate of a percentage of scheduled agents from each skill group that are available to handle a call;

(c) having the computer use the plurality of arrays generated in steps (a)-(b) to generate a schedule for each of the plurality of scheduled agents;

(d) having the computer run a call handling simulation against the schedule generated in step (c) using an ACD call distribution algorithm selected from a group of ACD call distribution algorithms;

(e) having the computer refine the net staffing arrays and the skills availability arrays as a result of the call handling simulation, wherein the refining of the net staffing arrays includes, for each said array, generating, for each time interval, a new estimate of

the difference between a given staffing level and a staffing level needed to meet a current call handling requirement, and wherein the refining of the skills availability arrays includes, for each said array, generating, for each combination of skill group and time interval to be scheduled, a new estimate of a percentage of scheduled agents from each skill group that are available to handle a call; and

(f) having the computer repeat steps (c)-(e) until a given event occurs, the given event selected from the group of events consisting of a determination that the schedule meets some given acceptance criteria, a passage of a predetermined period of time, predetermined number of iterations of steps (c)-(e), and a combination thereof."

Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that steps (c) and (d) are amended to read as follows:

"(c) having the computer implement a scheduler which uses the plurality of arrays generated in steps (a)-(b) to generate a schedule for each of the plurality of scheduled agents;

(d) having the computer implement an automatic call distributor (ACD) simulator which runs a call handling simulation against the schedule generated by the scheduler in step (c) using an ACD call distribution algorithm selected from a group of ACD call distribution algorithms, wherein the automatic call distributor (ACD) simulator runs the simulation faster than real time, and wherein the simulation includes

reading the schedule and creating simulated agents who log in, log out and go on breaks at times indicated

in the schedule,

generating simulated calls that match forecasted call volumes for the given call types,

delivering the simulated calls to the simulated agents according to the selected ACD call distribution algorithm, and simulating the agents' handling of the calls using average handle time statistics,

collecting and reporting statistics about the simulated telephone call center,

estimating the number of additional agents needed, or the surplus of agents, for each call type at each simulated time interval so that the simulated answer speed would meet a desired target, and

keeping track of how much simulated time each simulated agent spent on each call type, and how much time each agent was idle;"

Reasons for the Decision

1. Inventive step - main request

- 1.1 It is established case law that an invention which consists of a mixture of technical and non-technical features is to be assessed with respect to the requirement of inventive step by taking account of all those features which contribute to the technical character of the claimed subject-matter, whereas features making no such contribution cannot support the presence of an inventive step, see, e.g., T 641/00 (Comvik, OJ EPO 2003, 352, Reasons, point 4), T 154/04 (Duns Licensing, OJ EPO 2008, 46, Reasons, point 5), and T 1284/04 (not published in OJ EPO, Reasons, point 3.1).

- 1.2 In the present case it was common ground between the parties that in claim 1 as granted the feature "using a computer" gave the claimed method a technical character. The board agrees and refers to T 258/03 (Hitachi, OJ EPO 2004, 575, Reasons, points 4.5 to 4.7)). The question which remains is whether or not claim 1 as granted includes any further features which contribute to the technical character of the claimed subject-matter.
- 1.3 The board notes that the claimed method does not result in any technical effects which relate to the operation of the telephone call center referred to in the claim, which would otherwise contribute to the technical character of the claimed method, since the claim is directed to a method of determining a schedule for a plurality of agents in a telephone call center and not to a method of operating a telephone call center. In fact, as pointed out by the respondent in the letter dated 7 December 2011, the claimed method can even be carried out before the telephone call center is implemented. Since, apart from the reference to a telephone call center, the only other technical device implicitly or explicitly referred to in the claim is the computer, any technical effect must be sought in connection with the operation or functioning of the computer itself.
- 1.4 Looking now at each of the features of claim 1 in more detail, the board notes the following:

Apart from using a computer, the first paragraph of claim 1 (see point VIII above) merely recites the aim of the method, namely that of determining an efficient schedule for a plurality of scheduled agents in a telephone call center. This merely defines a business aim,

since it does not necessarily imply any technical effects or technical features in connection with the computer used. The remaining features of the first paragraph of the claim merely concern certain capabilities of the agents ("skills" and "skill groups").

Neither do steps (a) to (c) of claim 1 as granted imply any technical effects or technical features in connection with the computer, or even merely the use of the computer, since these steps do not exclude that the net staffing data, the skills group availability data, as well as the schedules for the agents are manually generated on the basis of a given number of agents, their skills and availability, and the number of calls expected for each time interval. The same considerations apply, *mutatis mutandis*, to the step of adjusting given net staffing skills availability data, cf. step (e).

The board notes that the above understanding of claim 1 is in accordance with the patent description, since it suggests that a representative computer for implementing a preferred method is a general purpose computer including a general purpose operating system ("a personal computer or workstation platform that is Intel x86-, PowerPC®- or RISC®-based", which includes "an operating system such as Windows'95, Windows® NT, IBM® OS/2®, IBM AIX®, Unix or the like", and "the various methods described are conveniently implemented in a general purpose computer selectively activated or reconfigured by software" (paragraphs [0025] and [0044] of the B-publication)).

- 1.5 In the letter dated 7 December 2011, the respondent argued that a telephone call center was a "complex physical system" which involved "hundreds or thousands of agents"

with "hundreds or thousands of skill combinations" and "thousands of incoming calls". Consequently, it would have been impossible to manually carry out the method steps, including the above steps (a) to (c) and (e).

The board notes however that the claim does not define any technical details of the telephone call center which would imply a system as referred to by the respondent. Hence, in the board's judgement, the claimed method does not imply that a computer is used in each of the method steps.

- 1.6 As to step (d) the board notes that carrying out a call handling simulation per se does not necessarily imply technical features, since it encompasses imitating a call handling in any suitably analogous situation at an abstract level. However, taking into account that the claim specifies that a computer is used and giving the wording "running a ... simulation" in step (d) of claim 1 the meaning it normally has in the relevant art, step (d) and, consequently, step (f) are understood as implying the use of the computer in order to repeatedly run a call handling simulation against the schedule.

Nevertheless, apart from the implied use of the computer, the claim does not specify any features of the call handling simulation in terms of its technical implementation, which might otherwise have implied, for example, a special computer architecture, a special computer functioning, or other technical effects which would have implied technical features of the computer. Hence, steps (d) and (f) essentially specify nothing more than the repeated running on the computer of what may be a given computer application program, in this case a call handling simulation program, without necessarily implying

a specific technical operation or functioning of the computer itself.

- 1.7 The board therefore concludes that only the use of a computer, more specifically the repeated running of a call handling simulation program on the computer, contributes to the technical character of the claimed method. Consequently, only this feature is to be taken into account in examining inventive step of the claimed subject-matter.
- 1.8 For examining inventive step, the board follows the well-established "problem-and-solution approach", according to which an invention is to be understood as a solution to a technical problem. Further, again in accordance with the well-established case law, where a claim refers to an aim to be achieved in a non-technical field, this aim may legitimately appear in the formulation of the problem as part of the framework of the technical problem that is to be solved, in particular as a constraint that has to be met, cf. T 641/00 (*loc. cit.*, Reasons, point 7) and T 154/04 (*loc. cit.*, Reasons, points 5, 15 and 16).
- 1.9 In view of the above considerations, in the present case the technical problem to be solved may be formulated as technically implementing a method of determining an efficient schedule for a plurality of scheduled agents in a telephone call center, each of the plurality of scheduled agents having a combination of defined skills and wherein the plurality of scheduled agents may be organized into skills groups each including all scheduled agents having a particular combination of skills, in which the method includes the steps of:
- (i) generating net staffing data per call type defining, for each time interval to be scheduled, an

estimate of a difference between a given staffing level and a staffing level needed to meet a current call handling requirement;

(ii) generating skills group availability data per call type defining, for each combination of skill group and time interval to be scheduled, an estimate of a percentage of scheduled agents from each skill group that are available to handle a call;

(iii) using the net staffing data and the skills group availability data to generate a schedule for each of the plurality of scheduled agents;

(iv) carrying out a given call handling simulation against the schedule;

(v) adjusting the net staffing data and the skills availability data as a result of the call handling simulation, and

(vi) repeating steps (iii)-(v) until a given event occurs.

1.10 The formulation of this problem does not contribute to an inventive step, since it is a common aim to technically implement, preferably automate, processes of various kinds, including business schemes.

1.11 Since it was common general knowledge at the priority date to use a computer in order to carry out processes of various kinds in various fields, including processes by which a given business aim is to be achieved, it would have been obvious to the person skilled in the art, when faced with the above technical problem, to use a computer and, hence, to implement the call handling simulation as a computer application program, in order to technically implement the above-mentioned method. The skilled person would thereby without exercising inventive skill arrive at

a method in which a computer is used for the repeated running of the call handling simulation program and, hence, would arrive at a method which includes all the features of claim 1 as granted.

- 1.12 The board notes that in the decision under appeal, the opposition division stated that "Following the Guidelines C-IV, 2.3.6 and Decision of the Board of Appeal T 1173/97 (OJ 10/1999,609) the subject-matter has a technical character since the method is capable of bringing about, when running on a computer, a further technical effect which goes beyond the normal physical interaction between the program and the computer, namely the management of the resources i.e. the call agents to achieve an optimal call distribution.". Subsequently, when examining inventive step, the opposition division defined the objective problem to be solved as "how to facilitate the production of high quality schedules to make it easier to manage call centers that use skills-based routing in their ACDs." and stated that this problem was solved by steps b) to f) of claim 1.

The board notes however that the requirement of bringing about a further technical effect as developed in T 1173/97 concerns the particular case of a computer program claimed by itself (T 1173/97, *loc. cit.*, Reasons, point 6), whereas present claim 1 is directed to a method. It is well-established case law that a clear distinction is to be made between a claim to a computer program, i.e. a sequential set of instructions, on the one hand, and the corresponding computer-implemented method, on the other hand (see G 3/08 (OJ EPO 2011, 10, Reasons, points 11.2.4 to 11.2.9) and T 424/03 (not published in OJ, Reasons, point 5.1)). The reasoning given by the opposition

division, which resulted in all features of claim 1 being taken into account in assessing inventive step, is therefore not convincing.

- 1.13 In connection with, *inter alia*, the main request, the respondent argued that all the features of claim 1 had to be taken into account in assessing inventive step, since the claimed invention provided a technical solution to a technical problem. The computer simulation was a technical tool used in order to efficiently design the telephone call center. All steps were carried out automatically in order to obtain the preferred results. This was a technical process, as opposed to a non-technical idea. The claimed invention solved the problem of providing a mechanism to facilitate the production of high-quality schedules to make it easier to manage call centers that use skill-based routing in their ACDs and to enable an efficient use of the call center resources, in particular staffing levels, network resources (trunk load), while providing the desired level of customer service. Similar to case T 1227/05 (OJ EPO 2007, 574), the claimed invention was a computer simulation of a real-world system, which enabled the real-world system to be optimised. In the present invention the optimum arrangement could be achieved before the call center was implemented, similar to the use of the simulation of the circuit in T 1227/05 before the circuit was fabricated. By analogy to case T 1227/05, in the call center environment modelled by the claimed invention the incoming calls were the signal, the random arrivals of the calls was the noise, and the call center, including its agents and telecommunications equipment (e.g. trunks and other hardware and software), was the circuit. Since all features of the claim contributed to the simulation and thereby to the

production of the efficient schedule, all features had to be taken into account in the assessment of inventive step.

The board notes however that the mere fact that a claim defines subject-matter which provides a technical solution to a technical problem does not necessarily imply that all features of the claim have to be taken into account in assessing inventive step. As stated above, see point 1.1, it is established case law that an invention which consists of a mixture of technical and non-technical features is to be assessed with respect to the requirement of inventive step by taking account of all those features which contribute to the technical character of the claimed subject-matter, whereas features making no such contribution cannot support the presence of inventive step.

Further, in the present board's view, the circumstances of the present case differ significantly from those of T 1227/05. In that case the invention related to a computer-implemented method for the numerical simulation of a circuit under the influence of $1/f$ noise, in which the dynamics of a physical variable of the circuit, e.g. an electric voltage, were simulated. The independent method claims specified the steps of generating a noise vector, which represented the $1/f$ noise, in which these steps resulted in a resource-efficient computer simulation of a circuit under the influence of $1/f$ noise (Reasons, points 1.2 and 1.3). The board held that beyond its implementation, a procedural step may contribute to the technical character of a method only to the extent that it serves a technical purpose of the method and, further, it held that a simulation of a circuit subject to $1/f$ noise constitutes an adequately defined technical purpose for a computer-implemented method, provided that the method is

functionally limited to that technical purpose (Reasons, point 3.1). The claimed methods were held to meet these conditions because, firstly, they concerned an adequately defined class of technical items, namely a circuit with input channels, noise input channels and output channels, the performance of which was described by differential equations, and, secondly, the stated purpose, namely the simulation of a circuit subject to $1/f$ noise, was established in the further steps of the claimed methods, according to which random numbers were generated, which actually introduced $1/f$ noise into the circuit simulation, thereby functionally limiting the claims to the simulation of a noise-affected circuit (Reasons, points 3.1.1 and 3.1.2). The board therefore concluded that all steps relevant to the circuit simulation contributed to the technical character of the simulation method and, hence, had to be taken into account in assessing inventive step (Reasons, points 3.2.4 and 4).

In the present board's view, it follows from T 1227/05 that steps relevant to a simulation of a technical item contribute to the technical character of the simulation method only if certain conditions, as cited above, are met. Leaving aside the question of whether these conditions are indeed sufficient to contribute to a technical character, the board notes that, in any case, these conditions are not met in the present case, since, in connection with the call handling simulation referred to in claim 1, the telephone call center and, in particular, its performance, are not further specified in the claim and, further, the claimed method does not define the further steps which actually result in the stated purpose, i.e. the call handling simulation.

The respondent's arguments are therefore not convincing.

1.14 In view of the above, the board concludes that the subject-matter of claim 1 of the main request lacks an inventive step (Articles 52(1) and 56 EPC).

1.15 The main request is therefore not allowable.

2. *Inventive step - first auxiliary request*

2.1 Claim 1 of the first auxiliary request differs from claim 1 of the main request in that in each one of the steps (a) to (f) the computer is explicitly used for carrying out the step in question (see point VIII above).

2.2 The considerations as set out above at point 1.6, second paragraph, in respect of steps (d) and (f) of claim 1 of the main request apply, *mutatis mutandis*, to each one of steps (a) to (f) of claim 1 of the present request. Hence, apart from the explicit use of the computer in each of these steps, the claim does not specify any features concerning the technical implementation of the generation of the net staffing data, the skills group availability data and the schedules for the agents, the adjustment of the net staffing and skills availability data, and the call handling simulation. None of these features imply, for example, a special computer architecture, a special computer functioning, or other technical effects which might require specific technical features of the computer. Rather, these steps essentially specify nothing more than the running on the computer of what may be a given computer application program, without necessarily implying a specific technical operation or functioning of the computer itself.

2.3 In view of the above and taking into account the considerations as set out above in respect of the subject-matter of claim 1 as granted, the board concludes that the subject-matter of claim 1 of the first auxiliary request lacks an inventive step (Articles 52(1) and 56 EPC).

2.4 The first auxiliary request is therefore not allowable.

3. *Inventive step - second auxiliary request*

3.1 Claim 1 of the second auxiliary request differs from claim 1 of the first auxiliary request essentially in that:

a') in step (a) the net staffing data is further defined as "a plurality of net staffing arrays";

b') in step (b) the skills group availability data is further defined as "a plurality of skills group availability arrays";

c') in step (d) the computer runs the call handling simulation using an automatic call distributor (ACD) call distribution algorithm selected from a group of ACD call distribution algorithms;

d') in step (e) the adjustment of the data is further defined as a refinement of the arrays and it is made explicit that in this step for each of the respective arrays new estimates as referred to in steps (a) and (b) are generated;

e') in step (f) the "given event" is defined as being selected from a group of events consisting of a determination that the schedule meets some given acceptance criteria, a passage of a predetermined period of time, predetermined number of iterations of steps (c)-(e), and a combination thereof.

3.2 In the board's view, none of these further features contribute to an inventive step, either because in comparison to the features of claim 1 of the first auxiliary request they do not define additional technical features or because they do not require the exercise of inventive skill by a person skilled in the art.

More specifically, features a') and b') merely define the way the data is represented, namely in arrays. Data arrays are however a format which is commonly used in data processing in a variety of fields, including bookkeeping, mathematics, electrical engineering and, in particular, in computer technology, in order to conveniently input, store, process, and/or output collections of data.

As acknowledged in the patent specification, at the priority date it was known that call centers were typically served by automatic call distributors (ACDs) and that different types of ACD systems or ACD call distribution logic existed (paragraphs [0004] and [0006] of the B-publication). Hence, when faced with the problem of implementing the call handling simulation referred to in step (d) of claim 1, which is a computer simulation of a distribution of calls as would occur in a real-world call center, it would have been obvious to

the skilled person to use call distribution logic which corresponds to or imitates the type of ACD of the call center which is simulated. Further, as acknowledged in the patent specification, the implementation of the call distribution logic was straightforward for a person skilled in the art (paragraph [0035] ("Methods for simulating such routing algorithms and for "plugging in" specific decision modules are straightforward and are outside the scope of the invention being described here.") and paragraph [0036] ("Means for mapping a specific ACD's skills representation to a suitable internal representation for the method are straightforward and are outside the scope of the invention being described.")). Hence, running the call handling simulation on the computer using an ACD call distribution algorithm selected from a group of ACD call distribution algorithms does not contribute to an inventive step (feature c')).

Without defining in what sense or how the data is refined, the board considers the term "refine" in step (e) in the context of the claim as synonymous with "adjust" as is used in step (e) of claim 1 of the first auxiliary request (see point VIII above). Further, reading claim 1 of the first auxiliary request with a mind willing to understand, it is implicit that the adjustment of the net staffing and skills availability data required the generation of new net staffing and skills availability data as defined in steps (a) and (b), respectively, data which is subsequently used in generating a new schedule as referred to in step (c), which, in turn, is used in the simulation referred to in step (d). Making in step (e) of claim 1 of the second auxiliary request explicit what was already implicit

does not alter the scope of the claim (feature d')).

In computer programs, it is common that a repetition of a sequence of instructions inside a loop is ended once a certain result is achieved, a predetermined computing time has expired, or a predetermined number of repetitions has been carried out. Feature e') does not define anything else and, hence, this feature does not contribute to an inventive step either.

3.3 In view of the above and taking into account the considerations as set out above in respect of the subject-matter of claim 1 of the first auxiliary request, the board concludes that the subject-matter of claim 1 of the second auxiliary request lacks an inventive step (Articles 52(1) and 56 EPC).

3.4 The second auxiliary request is therefore not allowable.

4. *Inventive step - third auxiliary request*

4.1 Claim 1 of the third auxiliary request (see point VIII) differs from claim 1 of the second auxiliary request, *inter alia*, in that in step (c) the computer implements a "scheduler" which is used for generating the schedule and in that in step (d) the computer implements an "automatic call distributor (ACD) simulator" which runs the call handling simulation. In the absence of any technical details of the scheduler and the ACD simulator and noting that claim 1 of the second auxiliary request already included the features of using the computer for generating the schedule and running the call handling simulation using an ACD call distribution algorithm at steps (c) and (d), respectively, in the board's view,

having the computer implement a scheduler and an ACD simulator does not alter the scope of the claim.

4.2 Claim 1 further defines in step (d) that the ACD simulator runs the simulation faster than real time (see point VIII). Apart from the lack of clarity due to the fact that the claim does not define the automatic call distributor, if any, which is used in real time, which would have been necessary in order to be able to make a comparison ("faster"), this feature is merely a *desideratum* and, hence, cannot be taken into account when assessing inventive step.

4.3 The remaining part of step (d) defines the simulation in terms of what the simulation input variables are, namely the time schedules of the agents and a predetermined number of incoming calls of different types, in which it goes without saying that the agents and calls are not real, but simulated too. Since a simulation of a call implies that a call duration has to be set, in the board's view, in order to achieve as realistic a result as possible, it would have been obvious to the skilled person that the call duration should be based on average handle time statistics of real calls. Collecting and reporting the results is why the simulation is run in the first place and, hence, is trivial.

Further, in step (d), the sub-step of "estimating the number of additional agents needed, or the surplus of agents, for each call type at each simulated time interval so that the simulated answer speed would meet a desired target" merely defines a result to be achieved, in which it is unclear how, in technical terms, the estimation is performed and what the "desired target" is.

Hence, in the absence of any well-defined technical features implied by this sub-step, no contribution to an inventive step can be discerned.

Finally, keeping track of how much simulated time each simulated agent spent on each call type, and how much time each agent was idle merely paraphrases the purpose of the claimed method, namely making efficient use of the agents available, whilst providing a desired level of customer service to the calling customers (cf. paragraph [0002] of the patent specification).

- 4.4 In view of the above and taking into account the considerations as set out above in respect of the subject-matter of claim 1 of the second auxiliary request, the board concludes that the subject-matter of claim 1 of the third auxiliary request lacks an inventive step (Articles 52(1) and 56 EPC).
- 4.5 The third auxiliary request is therefore not allowable.
5. The board concludes that the opposition ground according to Article 100(a) EPC prejudices the maintenance of the patent, either as granted or in amended form on the basis of one of the first to third auxiliary requests. Consequently, the patent is to be revoked.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

G. Rauh

A. S. Clelland