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**Datasheet for the decision
of 5 December 2023**

Case Number: T 1898/20 - 3.5.01

Application Number: 14777114.1

Publication Number: 3080765

IPC: G06Q30/00, G06Q30/02

Language of the proceedings: EN

Title of invention:
METHOD AND SERVER FOR PROVIDING FARE AVAILABILITIES, SUCH AS
AIR FARE AVAILABILITIES

Applicant:
Skyscanner

Headword:
Method and server for providing air fare availabilities/
SKYSCANNER

Relevant legal provisions:
EPC Art. 56, 111(1)
RPBA 2020 Art. 11

Keyword:
Inventive step - inappropriate notorious features - no
admitted prior art under the EPC - claim requires an
additional search to obtain the appropriate prior art
Appeal decision - remittal to the department of first instance
(yes)

Decisions cited:
T 0939/92, T 0641/00, T 1242/04

Beschwerdekammern

Boards of Appeal

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Case Number: **T 1898/20 - 3.5.01**

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 5 December 2023

Appellant: (Applicant)	Skyscanner Limited 5 Old Bailey London EC4M 7BA (GB)
Representative:	Langley, Peter James Origin Limited Twisden Works Twisden Road London NW5 1DN (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 9 June 2020 refusing European patent application No. 14777114.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Höhn
Members:	N. Glaser
	L. Basterreix

Summary of Facts and Submissions

I.   This appeal is against the decision of the examining
         division to refuse the European patent application
         No. 14777114.1 pursuant to Article 97(2) EPC on the
         ground of lack of inventive step (Article 56 EPC).

II.   In the statement setting out the 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 main request filed on 24 April 2020 or the first or
         second auxiliary requests filed on 27 April 2020. The
         appellant further requested that the appeal fee be
         reimbursed according to Rule 103 EPC due to a
         substantial procedural violation. Oral proceedings were
         requested as an auxiliary measure.

III.   In the communication pursuant to Article 15(1) of the
         Rules of Procedure of the Boards of Appeal, the Board
         set out its preliminary opinion in regard to inventive
         step. The Board furthermore outlined its preliminary
         view that it could not identify a substantial
         procedural violation and the appeal fee could not be
         reimbursed.

IV.   In a letter of reply, the appellant presented further
         arguments with regard to how to assess inventive step,
         the selection of the closest prior art and a potential
         procedural violation by refusing the application
         without a search for written prior art.

V.   The oral proceedings took place on 5 December 2023.
         Following a discussion of the issues of closest prior
         art and a potential substantial procedural violation,
         the appellant withdrew the request for reimbursement of

the appeal fee. The chairperson announced the decision
at the end of the oral proceedings.

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

"*A computer-implemented method of inferring, from a
Distribution System server response, which fare classes
are available, the method including the steps of:*

*(i) a computer server receiving a request for a fare
price for goods or services, together with parameters
defining those goods or services,*
*(ii) configuring one or more processors to determine
estimated prices from an incomplete historical price
dataset by analysing patterns in that dataset, at any
time with respect to step (i) above, wherein this step
comprises:*

    *(a) obtaining historical price quotes from a
    computer data store;*
    *(b) grouping the historical price quotes by
    category;*
    (c) deriving statistics for each group;
    *(d) storing on a computer for each group a
    classifier including the derived statistics, and*
    *(e) identifying groups with stored classifiers to
    which the requested price corresponds;*
*(iii) configuring one or more processors to calculate
estimates for the requested fare price for the goods or
services that satisfy the parameters, and calculating
estimates for the requested fare price for the goods or
services that satisfy the parameters;*
*(iv) sending the request to a Distribution System
server for fare prices;*
*(v) receiving from the Distribution System server the
Distribution System server's fare prices;*

*(vi) comparing the calculated estimates for the
requested fare price from step (iii) with the
Distribution System server's fare prices received in
step (v) so as to infer a fare class availability of
the Distribution System server, and
(vii) the computer server providing the inferred fare
class availability of the Distribution System server to
a computing device."*

Claim 13 of the main request reads as follows :

*"An inferring server configured to infer from a
Distribution System server which fare classes are
available, the inferring server configured to:
(i) receive a request for a fare price for goods or
services, together with parameters defining those goods
or services,
(ii) configure one or more processors to determine
estimated prices from an incomplete historical price
dataset by analysing patterns in that dataset, at any
time with respect to
(i) above, wherein the configuring comprises:
    (a) obtaining historical price quotes from a
    computer data store;
    (b) grouping the historical price quotes by
    category;
    (c) deriving statistics for each group;
    (d) storing on a computer for each group a
    classifier including the derived statistics, and
    (e) identifying groups with stored classifiers to
    which the requested price corresponds;
(iii) configure one or more processors to calculate
estimates for the requested fare price for the goods or
services that satisfy the parameters, and calculate
estimates for the requested fare price for the goods or
services that satisfy the parameters;*

(iv) send the request to a Distribution System server for fare prices;
(v) receive from the Distribution System server the Distribution System server's fare prices;
(vi) compare the calculated estimates for the requested fare price from (iii) with the Distribution System server's fare prices received in (v) so as to infer a fare class availability of the Distribution System server, and
(vii) provide the inferred fare class availability of the Distribution System server to a computing device."

Claim 1 of the first auxiliary request is identical to claim 1 of the main request. Claim 13 of the first auxiliary request is identical to claim 1 of the second auxiliary request and adds to claim 13 of the main request the features "*A system including a Distribution System server, characterized in that the system includes a computer, a computer data store and an inferring server* [as defined in claim 13 of the main request]".

Reasons for the Decision

1.   The invention

1.1   The invention concerns methods and systems for inferring which fare classes are available for a journey or service, such as for air fares, train fares, hotel prices, any type of goods or services whose prices are not fixed but instead are variable, see page 1, first paragraph, of the application.

1.2   In the context of airfares, a Global Distribution System (GDS) is known to gather schedules from the Official Airline Guide (OAG), fares from ATPCO and fare

class availability from the airlines. The stored infor-
mation is periodically updated, see page 1, second
paragraph. The GDS receives queries to quote for a
given route and date(s) and determines valid
itineraries, valid and available fares and adds the
correct taxes and surcharges. Running a query against a
GDS system can be slow, costs money and requires the
use of energy to perform the calculations and to
transmit the results. Storing fare class availabilities
for all possible routes between all possible airports
for a sufficiently long time horizon would require a
very substantial data storage capacity, see page 1,
second paragraph.

1.3   The invention proposes to estimate the availability
        (service class) from observed quotes (obtained from
        airline websites, OTAs, etc.) and FROP fares (a data-
        base of ATPCO) which are compared to each other to find
        matching ones, see page 23, line 16, to page 24, line
        32. For each observed quote the fare class availability
        can be derived by applying a service class from equiva-
        lent FROP records. The central idea is to estimate the
        availability rather than require it by a query from the
        GDS or airline reservation system.

2.   Article 56 EPC

2.1   Independent system claim 13 of the main request was
        refused for a lack of inventive step over a general
        purpose computer system which the examining division
        considered to be notoriously known, see points II.2 and
        II.4 of the impugned decision. The examining division
        argued in view of claim 1 of the second auxiliary
        request which it considered to be more limited than
        claim 13 of the main request and stated that the same
        objections apply mutatis mutandis to the subject-matter

of the independent claims of main and first auxiliary
request, see point II.12 of the impugned decision.

2.2   The examining division considered that claim 1 of the
second auxiliary request defined the technical features
of a system including a Distribution System server, a
computer, a computer data store and an inferring server
and one or more processors of the inferring server, and
stated that these features did not go beyond features
of a general purpose computing system which it
considered to be notoriously known.

2.3   The appellant in summary argued, see points 66 to 78 of
the Grounds, that a general purpose computer system
cannot be considered to represent the closest prior
art. A suitable starting point for the assessment of
inventive step was a Distribution System server which
was referred to in the application, page 1, lines 16 to
18, and page 27, line 26 onwards in combination with
Figure 17.

2.4   In the Board's view this case, like many in this field,
is all about drawing the line between non-technical
and technical subject-matter. This is of critical
importance since as stated in the COMVIK decision
T 641/00 (Two identities/COMVIK), only features with
technical character can support the presence of
inventive step. For a correct application of the COMVIK
approach first the closest technical prior art must be
identified.

2.5   The examining division assessed inventive step starting
from a client server computer system for which it did
not cite any prior art as it regarded such a system as
being "notorious".

2.6   According to the established case law of the Boards of
        Appeal it is possible to raise an objection of lack of
        inventive step without documented prior art (see e.g.
        T 939/92, point 2.3, OJ EPO 1996, 309). This is
        regarded as allowable where the objection is based on
        "notorious knowledge" or indisputably forms part of the
        common general knowledge. In such cases it would be
        inappropriate to carry out an additional search for
        documented prior art on purely formal grounds (see e.g.
        T 1242/04, point 9.2). The Case law of the Board's of
        Appeal, 10th edition, IV.B.4, page 1171, further sets
        out that an examining division should normally not
        refuse an application for lack of inventive step if the
        invention as claimed contained at least one technical
        feature which was not notorious. The term "notorious"
        had to be interpreted narrowly.

2.7   A client-server-computer-system at the general level at
        which it is referred to in the present application may
        be regarded as "notorious". Also the description of the
        present application builds on such knowledge when
        disclosing the invention. There are no specific tech-
        nical explanations found in the application documents
        about how a server works, how a client works and how
        those communicate. The details of the invention are
        disclosed under the assumption that a client-server-
        system was known in the art and a skilled reader would
        know how such a general purpose client-server-
        architecture works on the technical level required for
        understanding the invention.

2.8   If a specific client-server-architecture was of
        importance, the appellant inevitably would run into
        problems of sufficiency of disclosure, antecedent basis
        and enablement, since the description is silent with
        regard to the requirement of a specific client-server-

structure. This was the appellant's position during
oral proceedings, when it criticized the contested
decision for referring to notorious knowledge without
proving such knowledge by a documentary reference.

However, for the appellant, a Distribution System
server as claimed cannot be regarded as "notorious", as
it represents a server which implements specific
functions and serves a specific purpose.

2.9   In the written proceedings, the appellant argued that a
        suitable starting point for the assessment of inventive
        step was a Distribution System server which was
        referred to in the application (see point 2.3 above).
        The Board therefore originally assessed the subject-
        matter of the independent claims on the assumption that
        such a Distribution System server was common general
        knowledge.

2.10   However, the appellant stated later on in the appeal
        procedure, in particular during oral proceedings, that
        the cited parts of the description were not necessarily
        admissions of common general knowledge.

2.11   In contrast to US Patent Law, the EPC does not know the
        principle of admitted prior art. According to the Case
        law of the Boards of Appeal, 10th edition, I.C.2.7,
        bridging paragraph, pages 83 and 84, the acknowledge-
        ment of prior art in a patent application could no
        longer be relied upon if a patent proprietor resiled
        from an acknowledgement of that prior art. Such a
        Distribution System server therefore can no longer be
        considered to indisputably form part of the common
        general knowledge, as required if an additional search
        for documented prior art to be dispensed with on purely
        formal grounds (see e.g. T 1242/04, point 9.2).

2.12   The appellant argued that the computer-implemented
        method of claim 1 of the main request was distinct from
        a Distribution Server system by the specific method of
        inferring which fare classes are available in order to
        be able to properly assess whether this alleged
        difference achieves the technical effect of saving
        storage capacity in the caching of results, see
        application, page 3, lines 16 to 18, and page 13, lines
        9 to 19. Hence, documentary prior art about the
        technical functioning of a Distribution Server system
        at the technical level of storage management must be at
        hand.

2.13   However, the Board has at its disposal only the general
        statement, see point II.4 of the impugned decision,
        that such a system was "notorious". No documents were
        cited and no documents can be found in the search
        report. The Board is therefore not able to assess the
        appellant's afore-mentioned argument regarding savings
        in storage capacity in order to take a final decision
        with regard to inventive step.

2.14   As a result, after considering all the relevant circum-
        stances of the case at hand, the Board, noting that
        Article 11 RPBA 2020 cannot be seen as limiting the
        discretionary power of the Board provided by Article
        111(1) EPC, considers it appropriate to remit the case
        to the examining division 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 resumption of examination proceedings,
       including a search, based on the main request filed on
       24 April 2020.

The Registrar: The Chairman:

T. Buschek   M. Höhn

Decision electronically authenticated