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Datasheet for the decision
of 13 January 2015

Case Number:	T 1734/11 - 3.5.01
Application Number:	05759549.8
Publication Number:	1782352
IPC:	G06Q10/00, G06Q30/00
Language of the proceedings:	EN

Title of invention:
METHOD AND SYSTEM FOR PRESENTING RATES FOR TRAVEL SERVICES

Applicant:
Expedia, Inc.

Headword:
Presenting rates/EXPEDIA

Relevant legal provisions:
EPC Art. 52(2)(d)
EPC 1973 Art. 56

Keyword:
Inventive step (no - presentation of information)

Decisions cited:
T 0115/85, T 0641/00, T 0928/03, T 1741/08, T 0844/09

Catchword:

Beschwerdekammern
Boards of Appeal
Chambres de recours

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Case Number: **T 1734/11 - 3.5.01**

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 13 January 2015

Appellant: (Applicant)	Expedia, Inc. Suite 400, 13810 Southeast Eastgate Way Bellevue, WA 98005 (US)
Representative:	Grünecker Patent- und Rechtsanwälte PartG mbB Leopoldstrasse 4 80802 München (DE)
Decision under appeal:	Decision of the Examining Division of the European Patent Office posted on 17 March 2011 refusing European patent application No. 05759549.8 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman	K. Bumes
Members:	P. Scriven
	P. Schmitz

Summary of Facts and Submissions

I.   This is an appeal against the decision of the Examining
        Division to refuse European patent application No.
        05759549.8. The application was published as
        WO2006/009647 A2.

II.   The Examining Division refused the application, in oral
        proceedings on 1 March 2011, for lack of inventive step
        (main request and auxiliary requests one to three). The
        fourth auxiliary request was not admitted under Rule
        137(3) EPC, because the amended features did not
        overcome the objections under Article 56 EPC, and
        because compliance with Article 123(2) EPC was not
        immediately apparent.

        The Examining Division argued that the presentation of
        rates for travel services was a method of doing
        business and of presenting information, and that the
        technical character of the invention resided only in
        the automation of the method using a data processing
        system comprising a client, a server, an interactive
        interface, and a database having a cache. Starting from
        a notorious client-server system, the Examining
        Division could not derive any technical problem solved
        by the invention; therefore, an inventive step could
        not be established.

III.   In the statement setting out the grounds of appeal,
        dated 27 July 2011, the appellant requested that the
        decision to refuse the application be set aside and
        that a patent be granted on the basis of one of the
        main, the first auxiliary, and the second auxiliary
        requests underlying the impugned decision, or, based on
        newly-filed third to fifth auxiliary requests.

IV.   The Board summoned the appellant to oral proceedings.
        In a communication accompanying the summons, the Board
        provisionally agreed with the Examining Division that
        the invention did not involve an inventive step over
        the notorious client-server system.

V.   In reply to the Board's communication, the appellant
        filed, on 12 December 2014, a set of requests denoted
        auxiliary requests 6 to 9, and presented arguments in
        favour of inventive step.

VI.   Oral proceedings before the Board took place on
        13 January 2015. The appellant submitted auxiliary
        request 6a and withdrew the first and third to fifth
        auxiliary requests. The appellant's final requests were
        that the a patent be granted on the basis of the main
        request, the second auxiliary request, or one of
        auxiliary requests 6, 6a, and 7 to 9.

VII.   Claim 1 of the main request reads:

        *"A method for presenting rates for travel services, the
        method comprising:*

        *receiving at a travel server (106) a consumer's
        selection of a travel service relayed from a client
        device (102),*

        *upon the travel server (106) receiving the
        consumer's selection of a travel service, determining a
        proposed date of travel from the received consumer
        selection, and obtaining a dynamic range of available
        rates for a travel service from a least expensive rate
        to a most expensive rate from rate plan data, including
        calling (630) a cache of an inventory database (108) to
        obtain rate plan data associated with the travel*

*service and retrieving (640) the rate plan data from
the cache,*

*subdividing the dynamic range of available rates
into a limited number of pricing bands, wherein each
pricing band represents a portion of the dynamic range
of available rates,*

*determining an approximate rate for the travel
service based on the pricing band corresponding to the
portion of the dynamic range of available rates within
which an exact rate for the travel service falls, and*

*presenting to the client device (102) the
approximate rate for the travel service in an
interactive interface using a characteristic keyed to
the corresponding pricing band, the characteristic
including at least one of a graphical and audio
characteristic that conveys a relative expense of the
approximate rate for the travel service compared to
other approximate rates for the travel service
presented in the same interface,*

*wherein obtaining the dynamic range of available
rates for the travel service from the least expensive
rate to the most expensive rate from the rate plan data
includes obtaining rates available during or close to
the proposed date of travel, and presenting the
approximate rate for the travel service is presenting
the approximate rate for the travel services for a
particular date during or close to the proposed date of
travel."*

VIII. The second auxiliary request differs from the main
request in that the following text is added to the
second method step of claim 1:

*"comprising determining which months of the rate
plan data for the consumer's selection of the travel
service to obtain from the cache of rate plan data
obtained from the inventory database, wherein the cache
is a subset of the rate plan data stored in a memory
(450) of the travel server (106) and periodically
refreshed to facilitate rapid access to current rate
plan data while minimizing database access delays"*

Claim 1 of the second auxiliary request also specifies
that the *"subdividing"* and *"determining"* steps are
performed *"by the travel server"*.

IX. Claim 1 of the sixth auxiliary requests builds on claim
1 of the second auxiliary request and includes the
further limitations that there are *"no more than five"*
pricing bands, that the step of obtaining the dynamic
range of available rates includes *"obtaining rates
available during a period of time, the period of time
including a month during or close to which the proposed
date of travel occurs plus an additional number of
months proximate to the month during or close to which
the proposed data of travel occurs",* and that *"the
interactive interface is an interactive calendar in
which the characteristic keyed to the corresponding
pricing band is displayed in a particular cell of the
interactive calendar that represents the particular
date during or close to the proposed date of travel and
the cells of the interactive calendar represent a month
in which the particular data during or close to the
proposed data of travel occurs and a month proximate to
the month in which the particular date during or close
to the proposed date of travel occurs".*

X.   Auxiliary request 6a differs from auxiliary request 6
        in that claim 1 specifies that the period of time
        during which the available rates are obtained is *"six
        months starting with a month during which the proposed
        date of travel occurs"*.

XI.   Auxiliary request 7 builds on auxiliary request 6 and
        adds the following feature at the end of claim 1: *"the
        method further comprising determining (738) if consumer
        input to the interactive calendar changing the proposed
        date of travel causes a change in the period of time
        for which rates are obtained in obtaining the dynamic
        range of available rates, and if yes, redetermining, by
        the travel server, the period of time and recomputing,
        by the travel server, the pricing bands accordingly"*.

XII.   Claim 1 according to auxiliary request 8 reorders the
        features of claim 1 according to the second auxiliary
        request and introduces the limitation that, in addition
        to the approximate rates, the exact rates are presented
        to the client device. Claim 1 according to auxiliary
        request 8 reads in full:

        *"A method for presenting rates for travel services, the
        method comprising:*

        *receiving at a travel server (106) a consumer's
        selection of a travel service relayed from a client
        device (102) via an interactive interface that is
        accessible to the client device (102),*

        *upon the travel server (106) receiving the
        consumer's selection of a travel service, the travel
        server (106) determining a proposed date of travel from
        the received consumer selection, and the travel server
        (106) obtaining a dynamic range of available rates for*

a travel service from a least expensive rate to a most expensive rate from rate plan data, including the travel server (106) calling (630) a cache of an inventory database (108) to obtain rate plan data associated with the travel service and the travel server (106) retrieving (640) the rate plan data from the cache, comprising determining which months of the rate plan data for the consumer's selection of a travel service to obtain from the cache of rate plan data obtained from the inventory database (108), wherein the cache is a subset of the rate plan data stored in a memory (450) of the travel server (106) and periodically refreshed to facilitate rapid access to current rate plan data while minimizing database access delays, wherein obtaining the dynamic range of available rates for the travel service from the least expensive to the most expensive rate from the rate plan data includes obtaining rates available during or close to the proposed date of travel,

subdividing, by the travel server (106), the dynamic range of available rates into a limited number of pricing bands, wherein each pricing band represents a portion of the dynamic range of available rates,

determining, by the travel server (106), an approximate rate for the travel service based on the pricing bands corresponding to the portion of the dynamic range of available rates within which an exact rate for the travel service falls, and

presenting to the client device (102) in the interactive interface for a particular date during or close to the proposed date of travel the approximate rate for the travel service by a characteristic keyed to the corresponding pricing band, the characteristic

including at least one of a graphical and audio
characteristic that conveys a relative expense of the
approximate rate for the travel service compared to
other approximate rates for the travel service
presented in the same interface, and, in addition, the
exact rate."

XIII.   Auxiliary request 9 differs from auxiliary request 8 in
         that the further limitations of auxiliary request 6 as
         defined above are added to claim 1.

XIV.   The appellant's arguments may be summarised as follows:

         The use of a notorious client-server system could not
         be the starting point for assessing inventive step.
         That would result in a disproportionate hurdle for the
         applicant, because it was difficult, if at all
         possible, to identify a technical problem with respect
         to such prior art. A general purpose computer system
         had no drawbacks, because it was just a set of machines
         suitable for performing some tasks; there would be no
         reason to improve it.

         Where there was documentary prior art available in the
         same or a similar technical field (in the present case
         electronic travel service systems), it was mandatory to
         assess inventive step vis-à-vis such prior art. The
         prior art closest to the invention was the published
         patent application GB2366403A, which was cited in the
         international search report.

         The invention concerned a particular technical
         implementation of presenting travel rates to a user,
         comprising computing pricing bands and presenting those
         bands in an interactive user interface using a
         characteristic keyed to the corresponding band. This

particular implementation contributed to the solution
of a technical problem by providing a technical effect:
the pricing bands allowed the user quickly to compare
rates, without having to look at the exact rates, which
reduced user interaction.

By calculating the pricing bands from six months of
available exact rates, while displaying only two months
of approximate rates, the user could quickly grasp
whether the rates on or close to the proposed date of
travel were good in comparison to other rates during a
six-month period, without having to scroll to other
months of the whole six-month period. Furthermore,
since only two months were displayed, less screen
estate could be used. This was similar to T 928/03-
Video game/KONAMI, where the Board considered the
conflicting requirement of displaying a zoomed-in image
and keeping an overview of a zone of interest larger
than the display area to be a technical requirement.

The solution using pricing bands was based on the
notion that an online travel service system involved
the processing of large amounts of complex information,
which was to be presented to the user on a relatively
small screen. In other words, the solution relied on a
technical understanding of the underlying travel
service system, and, consequently, it lay within the
scope of a technically qualified person and not that of
the business or administrative person (T 844/09, point
5.3 of the reasons). While the business person might
have come up with the general idea of improving user
interaction, the solution of using pricing bands would
have to be provided by a technically skilled person.

The pricing bands provided a reduction in the amount of data transmitted from the travel server to the client device; it would take less data to send the limited number of pricing bands than to send the full range of exact rates.

The solution of calculating the pricing bands at the travel server was particularly surprising since they would only be of interest to the querying consumer; it would make more sense to calculate the pricing bands in the client device. Furthermore, as the complex calculations would increase the query response time of the server, the calculations were only made possible by a specifically adapted cache.

Reasons for the Decision

1.   The invention concerns the online presentation of rates for travel services.

2.   When booking a holiday online, a consumer typically has to navigate through numerous web pages and to digest large amounts of detailed information. This makes it difficult to compare different offers, and to get an overview of available rates (see page 3, lines 1-14, of the published application).

3.   The invention seeks to overcome this by providing a limited number of "pricing bands" representing approximate rates for travel services. The pricing bands are presented to the consumer using a "characteristic" keyed to each band, e.g. one colour for the least expensive band, another for the next, and

so on (published application, page 3, lines 23-30; and figure 10).

4.   The invention is implemented in a system comprising a "travel server" and a "client device". There is also an "inventory database", having a cache, for storing the "rate plan data". The travel server receives the consumer's selection of a travel service, determines a proposed date of travel from the consumer's selection, computes the pricing bands, and transmits them to the consumer's client device where they are presented, using the characteristics, in an "interactive interface".

5.   *Auxiliary request 6a*

5.1   Since auxiliary request 6a is more narrowly defined than any of the main request, auxiliary request 2, and auxiliary request 6, the Board finds it convenient to consider this request first.

5.2   Claim 1 defines a method for presenting rates for travel services, making use of the travel service system comprising a travel server and a client device.

In this request, the travel server calculates the pricing bands by dividing the dynamic range of available rates into no more than five bands. The available rates cover a period of six months starting from the month in which the proposed date of travel occurs. Moreover, the interactive interface of the client device is an "interactive calendar" displaying the pricing bands for two months: the month in which a "particular date during or close to the proposed date of travel" occurs, and a month proximate to it.

5.3   In the decision under appeal, the Examining Division
        assessed inventive step starting from a notorious data
        processing system comprising: a server; a client device
        having an interactive interface; and a database having
        a cache. The appellant did not contest that such a
        system was known, but argued that it was not the
        "closest prior art" and, consequently, not an
        appropriate starting point for assessing inventive
        step.

5.4   The Board is not convinced by the appellant's argument
        concerning the "closest prior art". Inventive step is
        assessed against the state of the art, meaning all
        prior art. One obvious route from a reasonable starting
        point is enough to demonstrate a lack of inventive
        step. In the Board's view, the notorious client-server
        system represents a reasonable starting point because
        it relates to the overall architecture of the system
        used in the method of claim 1.

5.5   The invention according to claim 1 differs from the
        notorious client-server system by the method for
        presenting rates for travel services, the method being
        implemented in the system to the effect that the server
        receives a request from the client, calculates the
        pricing bands, and transmits the results to the client
        device where they are presented. Thus, according to
        established case law of the Boards of Appeal, the
        question to be decided is whether this difference makes
        a technical contribution which supports the presence of
        an inventive step (see in particular T 641/00-*Two
        identities/COMVIK*, Headnote 1, OJ EPO 2003, 352).

5.6   The appellant argued that the presentation of rates,
        involving pricing bands and the display of two months
        out of six, was technical because it required less user

interaction, could occupy a smaller screen area, and reduced the amount of data to be transmitted.

5.7   In the Board's view, however, a reduction of user interaction does not necessarily convey technical character to the means for achieving the reduction. For example, a travel agent who acts as an intermediary between providers of travel services and a prospective traveller also has the effect of reducing the interaction between the end consumer and the providers of those services. The travel agent collects and processes information, and presents the results to the customer in a suitable form. This is, in the Board's view, an administrative process which can be performed without technical means and without the need of technical skill.

5.8   In relation to inputting information to a machine and reducing the burden of doing so, while these may be technical tasks *a priori* (at least in the sense that they are not listed in Article 52(2) EPC), not everything that supports a technical task has itself a technical character (T 1741/08-*GUI layout/SAP*, point 2.1.12).

5.9   On the other hand, presenting (i.e. outputting) information is deemed to be non-technical *a priori* (Article 52(2)(d) EPC). However, in contrast to the presentation of the state of a technical machine, which may have technical character (T 115/85-*Computer-related invention/IBM,* OJ EPO 1990, 30), the Board considers that the presentation of pricing information, for example by colour coding, no matter how skilful that might be, is a non-technical aspect even if it helps the user to conduct a price-sensitive travel query more efficiently.

5.10   The particular manner of calculating the pricing bands
        depends on the information to be presented and on the
        requirements of the requesting consumer. A consumer
        might ask a travel agent for information about rates
        for a particular date. The question posed by the
        consumer might be whether the rates were good in
        comparison to other rates over a six-month period. This
        is a non-technical requirement, and not a technical
        solution to a technical problem.

5.11   The Board does not accept that two months necessarily
        take up a smaller area of the screen than a six months.
        That depends on display parameters such as font size
        and resolution, which are not defined in claim 1. In
        any event, the Board considers this to be a direct
        consequence of the non-technical requirement to present
        two months instead of six months. This may be put in
        contrast to T 928/03, where the conflict between the
        limited display area and the information to be
        conveyed, arose in the context of a video game and, was
        resolved using technical means, namely a guide mark
        indicating what is happening outside the displayed
        area. In the Board's view, T 928/03 does not support
        the proposition that the display of any global property
        on a local display is technical.

5.12   The Board is not convinced that the pricing bands lead
        to bandwidth reduction. The appellant's argument seems
        to compare the invention with a method that transmits
        exact prices. That, however, is not the starting point
        for the assessment of inventive step.

        Furthermore, claim 1 does not specify any relationship
        between the number of pricing bands and the number of

exact rates, so it might well take more data to define
the pricing bands than to send the exact rates. Indeed,
claim 1 according to auxiliary request 8 shows that
transmission of the exact rates in addition to the
pricing bands is not excluded, and that would lead to
an increase of data to be transmitted. Thus, the effect
of bandwidth reduction does not appear to be obtained
even when the invention is compared to the method of
transmitting exact prices only.

5.13   For these reasons, the Board does not see that the
        particular manner of presenting rates for travel
        services, using pricing bands and the corresponding
        characteristics, contributes to the solution of a
        technical problem by providing a technical effect. In
        the Board's judgment, this is a matter of presentation
        of information, which does not contribute to the
        technical character of the invention (Article 52(2)(d)
        EPC). To continue the example of 5.10, above, the agent
        would not normally list all rates for a six-month
        period, but would rather say that the best rate is on
        such and such a date, or that October is the best month
        and that the cheapest rates are in the first week.

5.14   Therefore, the Board considers that the technical
        contribution of the invention over the notorious
        client-server system lies in how the method is
        implemented, and in particular in how the method steps
        are distributed between the client and the server.

5.15   The Board considers the particular distribution of
        tasks between a server and a client in a distributed
        computing environment to be a routine choice. The
        skilled person would choose between centralized and
        decentralized solutions depending on factors such as
        the available computational resources and transmission

bandwidth. The application does not show any
consideration of such factors, let alone a particular,
optimal balance. The fact that there may be other, more
obvious solutions does not create a prejudice against
the invention. The question to be answered is whether
the invention would have been obvious, not whether it
would have been most obvious. The Board considers that,
at least when the server and client are such that the
former is relatively more powerful, calculation by the
server would have been obvious.

5.16   It is common ground that the use of a cache to provide
        fast access to data was known at the date of the
        invention.

        In the Board's view, the effect of the cache in claim 1
        is independent of the calculation of the pricing bands.
        A cache would reduce latency of data access, with or
        without pricing bands. Similarly, the complexity of the
        calculation of the pricing bands does not depend on the
        use of a cache. Thus, the Board does not share the
        appellant's view that the use of a cache for accessing
        the rate plan data provides any surprising advantage.
        On the contrary, this is nothing more than using a
        cache for what it was designed for.

5.17   For these reasons, the Board considers that the
        implementation of the method for presenting travel
        services on the notorious client-server system would
        have been straightforward, and obvious for the skilled
        person.

5.18   In conclusion, auxiliary request 6a cannot be allowed,
        because the subject-matter of claim 1 does not involve
        an inventive step (Article 56 EPC 1973).

6.   *Main request, auxiliary request 2, and auxiliary request 6*

        The subject matter of claim 1 according to auxiliary request 6a is within the scopes of claim 1 of the main request, of auxiliary request 2, and of auxiliary request 6. Thus, for the same reasons as above, these requests are not allowable for lack of inventive step (Article 56 EPC 1973).

7.   *Auxiliary request 7*

7.1   Compared to auxiliary request 6, claim 1 adds that, if the consumer input to the interactive calendar changes, the pricing bands are recalculated accordingly.

7.2   In the Board's view, this feature is a direct consequence of the interactive nature of the method. Furthermore, if it is obvious to perform the method once, based on first input data, it would be equally obvious to repeat the method, based on second input data. Therefore, auxiliary request 7 is no more allowable than auxiliary request 6.

8.   *Auxiliary request 8*

8.1   Claim 1 according to this request differs from auxiliary request 2 essentially in that, in addition to the characteristic keyed to the corresponding pricing band, the exact rate is presented.

8.2   The Board considers this feature to be a matter of choosing which information to present, which cannot support the presence of an inventive step. Choosing to display the exact rates is no more technical than

choosing to display the pricing bands.

9.   *Auxiliary request 9*

Claim 1 is based on auxiliary request 8 and includes
further limitations as in auxiliary request 6. Since
neither auxiliary request 6 nor auxiliary request 8
provides a technical contribution over the notorious
client-server system, nor does auxiliary request 9,
which is consequently not allowable for lack of
inventive step (Article 56 EPC 1973).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek   K. Bumes

Decision electronically authenticated