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Datasheet for the decision
of 15 February 2018

Case Number: T 1896/12 - 3.5.01

Application Number: 09719548.1

Publication Number: 2272031

IPC: G06Q20/00

Language of the proceedings: EN

Title of invention:
DYNAMIC CURRENCY CONVERSION SYSTEM AND METHOD

Applicant:
Global Blue S.A.

Headword:
Dynamic currency conversion/GLOBAL BLUE

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - determining at the user terminal the type of currency rate conversion to be performed at the host (no - obvious possibility) - preprocessing at user terminal relieving processing demand on host (no - bonus effect)

Decisions cited:
T 1194/97, T 0641/00, T 0258/03

Catchword:
see points 3.7 and 3.12 of the reasons

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: **T 1896/12 - 3.5.01**

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 15 February 2018

Appellant: (Applicant)	Global Blue S.A. Route de Crassier 7 1262 Eysins (CH)
Representative:	D Young & Co LLP 120 Holborn London EC1N 2DY (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 26 March 2012 refusing European patent application No. 09719548.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	W. Chandler
Members:	M. Höhn
	Y. Podbielski

Summary of Facts and Submissions

I.   This appeal is against the decision of the examining
        division refusing European patent application No.
        09719548.1 pursuant to Article 97(2) EPC on the ground
        of lack of inventive step (Article 56 EPC)

II.   In this decision reference is made to the following
        prior-art publication which was cited during the
        examination procedure:

        D1:   US 2003/0046234 A1.

III.   In the statement setting out the grounds of appeal, the
        appellant requested that the appealed decision be set
        aside and that a patent be granted on the basis of the
        main request on which the decision was based. Oral
        proceedings were requested on an auxiliary basis.

IV.   In its communication submitted with the summons to oral
        proceedings, the Board expressed its preliminary
        opinion that the request lacked inventive step
        (Article 56 EPC).

V.   In a reply, dated 11 January 2018, the appellant filed
        an amended main request and an auxiliary request
        together with arguments in favour of inventive step.

        At the oral proceedings, the appellant confirmed his
        requests that the decision under appeal be set aside
        and a patent be granted on the basis of the main
        request or, in the alternative, auxiliary request 1
        filed with letter dated 11 January 2018.

        After due consideration of the appellant's arguments
        the Chairman announced the decision.

VI.   Independent claim 1 according to the main request reads
       as follows:

       "1. A transaction terminal system comprising:
       - at least one input interface (50, 52, 54) to receive
       payment card data and transaction details, the at least
       one interface including a card reader (54) configured
       to read the payment card data from a payment card;
       - a communications interface (62) to connect to a
       remote host system (18); and
       - processing logic (40) operable
       - to determine payment card data available from the
       payment card and to use the determined payment card
       data to determine one of a plurality of types of rate
       request messages (331, 333, 335, 339, 342) to transmit
       via the communications interface to the remote host
       system for identifying a currency conversion rate and
       - to receive a response message from the host system,
       - wherein each type of rate request message includes
       the determined payment card data and a respective
       request type indicator indicative of the type of rate
       request message,
       - wherein a rate request message for at least a
       selected rate request message type includes a
       conversion currency field for a conversion currency
       indicator; and
       - wherein at least one response message is a rate
       response message including a conversion currency
       indicator, a conversion rate indicator and a converted
       transaction amount value for that currency."

       Claim 1 according to the first auxiliary request
       further specifies that the processing logic comprises a
       chip logic module and further adds to the end of the
       claim:

"- wherein the processing logic is operable to respond
to insertion of a payment card having a logic chip to
attempt to retrieve billing currency information or
issuer country information stored on the payment card
and
- in the event of billing currency information being
retrieved from the payment card, to transmit a rate
request message of a first type that includes a first
request type indicator indicative that the rate request
message is of the first type and includes a conversion
currency indicator representative of a billing currency
retrieved or derived from information retrieved from
the payment card, or
- in the event of issuer country information being
retrieved from the payment card, to transmit a rate
request message of a third type that includes a third
request type indicator indicative that the rate request
message is of the third type and includes an issuer
country indicator representative of an issuer country
retrieved or derived from information retrieved from
the payment card, and
- wherein the processing logic comprising a switchable
logic module switchable to be active or inactive, which
switchable logic module is operable, when active and in
the absence of a conversion currency being identified
in the transaction terminal system, to transmit a rate
request message of a second type that includes a second
request type indicator indicative that the rate request
message is of the second type and does not include a
conversion currency indicator."

VII.   The appellant argued essentially as follows:

In contrast to the contested decision, which relied on
a general purpose networked ATM, D1 should have been

considered as the closest prior art. Claim 1 provided
for "identification" of what processing needed to be
conducted at the host subject to local requirements at
the terminal so that the host did not need to be aware
of all local requirements (see point 6.3.2 of the
grounds of appeal). In other words, the client terminal
determined what currency conversion method to use,
whereas the rest of the processing was done in the
host.

According to the appellant the distribution of tasks
between the client and the host according to claim 1
enabled an optimisation of the processing load at the
host. A certain kind of preprocessing was performed by
the client by determining one of a plurality of types
of rate request messages with the alleged effect of a
reduced processor load at the host (see e.g.
point 6.3.1 of the statement setting out the grounds of
appeal).

Reasons for the Decision

1.   The appeal complies with the provisions referred to in
        Rule 101 EPC and is therefore admissible.

        Main request

2.   Claim 1 relates to a card-based system that can offer a
        user (e.g. a payment card holder) an alternative
        currency for payment. More specifically, it is directed
        to a transaction terminal system, i.e. a client, which
        is connected to a host via a communication interface.
        An input interface receives payment data from a card.
        Based on that payment data the client determines a
        "type of rate request message", which essentially tells

the host which method it should use to convert the
amount to the alternative currency. The host replies
with a response message providing a currency conversion
rate. The messages exchanged between client and host
are mainly defined by respective fields and indicators
related to financial aspects regarding a currency
conversion and payment card data.

2.1   The technical infrastructure of an ATM client according
        to claim 1 connectable to a host is essentially the
        same as was used in the prior art before the priority
        date of the present application (see e.g. figure 2 of
        D1). It is rather the types of messages and the
        distribution of processing that distinguish the claimed
        subject-matter from known ATMs. According to the
        appellant's submissions, a certain kind of
        preprocessing is performed by the ATM client by
        determining one of a plurality of types of rate request
        messages with the alleged effect of a reduced processor
        load at the host (see e.g. point 6.3.1 of the statement
        setting out the grounds of appeal).

2.2   According to the disclosure of the present invention,
        the alleged technical effect of reduced processor load
        is related to elements 10, 18, 32 and 34 of figure 1
        operating as shown in figure 5A, process F as part of
        the upper part of figures 4B and 4C of the application.
        The "preprocessing" is the selection of one of five
        categories depending on what information is available
        on the payment card (currency code available; dynamic
        currency retrieval allowed; issuer country code
        available etc.). In the Board's view this is a
        collection of necessary information for generating the
        correct rate request message to be transmitted rather
        than a processor demanding preprocessing. This analysis
        is in accordance with the appellant's statement that

claim 1 provides for "identification" of what
processing needs to be conducted at the host subject to
local requirements at the terminal so that the host
does not need to be aware of all local requirements
(see point 6.3.2 of the grounds of appeal).

2.3   However, according to the wording of claim 1 the
"determined card payment data" is also transmitted to
the host, i.e. the information about local
requirements. The Board does not concur with the
appellant's interpretation that only the necessary
payment card data is transmitted. According to claim 1,
which reads "to determine payment card data available
from the payment card and to use the determined payment
card data to determine one of a plurality of types of
rate request messages", the expression "determined
payment card data" refers to all the information read
from the card. Therefore, according to claim 1 there is
no room for any reduction of bandwidth when
transmitting data to the host.

3.   Article 56 EPC - Inventive step

3.1   The assessment of inventive step in the decision under
appeal considered a general purpose networked ATM as
described in the description of the present application
to be the closest prior art (see page 3, last paragraph
of the contested decision). However, the Board concurs
with the appellant that D1 is the more appropriate
starting point for assessing inventive step.

3.2   The independent claims are directed to a mix of
technical and non-technical features. The Board does
not dispute that claim 1 directed to a client terminal,
claim 12 directed to a host, claim 20 directed to a
system comprising client and host, as well as the

method according to claim 21 appear in a technical
context. The method can be considered to be performed
by technical means, because it involves at least one
computer with means for storing data, means for
processing data and means for transmitting and
receiving data, and, therefore, has technical
character. Accordingly, the claimed subject-matter is
an invention in the sense of Article 52(1) EPC (see
T0258/03 "Auction method/HITACHI").

3.3   However, the question of inventive step requires an
       assessment of whether the invention makes a technical
       contribution over the prior art. Features which do not
       make such a contribution cannot support the presence of
       an inventive step (see T0641/00 "Two identities/
       COMVIK", Headnote I).

3.4   In the Board's judgement the features related to
       payment data, currency rates and conversion "per se"
       are considered to pertain to a financial method, i.e.
       to the non-technological part of claim 1.

3.5   The contribution of the invention does not lie in an
       improved infrastructure of a networked ATM. The ATM
       connected to a host as used according to claim 1 is
       that of a general purpose ATM network as disclosed in
       figure 2 of D1. Every communication between ATM and
       host involves requests and messages, which are
       technical features in general, but which were commonly
       known in the art and are disclosed, at least
       implicitly, in D1 (see e.g. figure 5). The contribution
       lies rather in the way of associating payment card
       related information with rate request data, namely for
       generating a currency conversion request message. The
       type of data processed is financial data (account
       numbers, issuer country codes, billing currency etc.),

which in the Board's view is non-technical cognitive
data, not functional data (see T 1194/97 Data structure
product/PHILIPS, OJ EPO 2000, 525).

3.6   According to the appellant the distribution of tasks
        between the client and the host according to claim 1
        enables an optimisation of processing load at the host.
        A certain kind of preprocessing is performed by the
        client by determining one of a plurality of types of
        rate request messages with the alleged effect of a
        reduced processor load at the host (see e.g. point
        6.3.1 of the statement setting out the grounds of
        appeal).

3.7   The Board agrees with the appellant that a decision
        about the distribution of tasks between client and host
        generally falls within the technical domain and, hence,
        contributes to the technical character of the claim.
        However, the Board judges that there is no inventive
        technical contribution involved by the claimed solution
        in this case in view of the disclosure of D1 and the
        fact that the distribution is triggered by financial
        rules and data analysis depending on the payment card
        data.

        The claimed "preprocessing" at the client side, i.e.
        the ATM, is in fact the selection of one of a plurality
        of categories depending on what information is
        available on the payment card (see the application on
        page 14, line 3 onwards and figure 4B: currency code
        available; dynamic currency retrieval allowed; issuer
        country code available). In the Board's view, this is a
        collection and organisation of the necessary financial
        information for generating the correct rate request
        message to be sent to the host. Those are considered to
        be non-technical prerequisites, which the technically

skilled person would receive from the business person
as a specification requirement for implementation.
Thus, in the Board's view, the skilled person would be
faced with the problem of how to implement this
"preprocessing" given the teaching of D1.

3.8   D1 discloses the technical infrastructure according to
        claim 1 (see D1, figure 2 with corresponding text of
        the description). Currency conversion is based on
        account specifying information read from a magnetic
        card (see D1, e.g. figures 3 and 4, steps S10, S20 and
        [36, 45]). Either a user has different accounts with
        different currencies (see D1, [0069]) or the user can
        directly select a currency (see D1, [0075]) resulting
        in different rate request types.

3.9   According to D1, the processing for conversion rates
        and converted transaction amounts may be executed by
        either the ATM or the host (see e.g. D1, [0040, 0048,
        0077]). The host then replies by communicating a
        conversion rate to the ATM (see D1, [0081]).

        The Board points out that the so called "second
        configuration" in D1 according to which the user is
        presented with information to directly select a
        currency (see D1, [0075]) is equivalent to dependent
        claim 6 of the present application (see also figure 4C,
        steps 340, 341). Since there is no hierarchy defined in
        claim 1 for determining the types of rate request
        messages and claim 6 directly refers to claim 1, the
        scenario covered by claim 6 falls within the scope of
        claim 1. The skilled reader of D1 would realize from
        the second configuration of D1, that part of the
        processing can be done at the terminal (selection of a
        currency), while the rest of the processing is done by
        the host (looking up a conversion rate).

3.10   The person skilled in the art within the meaning of
        Article 56 EPC, a computer expert in the field of ATM
        networks, provided with the rules for currency
        conversion of the non-technical abstract financial
        concept, would have considered the claimed
        implementation obvious in view of the normal skills and
        the general knowledge of computer programming in order
        to solve the problem of efficiently and effectively
        implementing currency conversion (see point 6.2.2 of
        the grounds of appeal) in an ATM network according to
        D1. The skilled person knowing about distributed
        computing in client-server-networks would have
        considered using processing capacities at the client as
        well as at the host in an efficient way depending on
        what financial information is available at the ATM
        terminal without the need for inventive skills.

3.11   Storage, selection and processing of financial data is
        an administrative measure, such as would be performed
        by a human when converting currencies and looking up
        currency rates, making use of general purpose computer
        functions (e.g. storing and retrieving information in
        electronic form) without creating a further technical
        effect. The distribution of tasks between client and
        host contributes to the technical character of the
        claim, but does not provide for an inventive technical
        contribution in view of the disclosure of D1. The fact
        that the steps of retrieving, selecting and
        transmitting are performed automatically is an obvious
        consequence of using a networked ATM system.

3.12   The appellant's arguments to the contrary provided in
        writing and during oral proceedings do not convince. In
        particular, the Board considers that any savings due to
        the "preprocessing" is actually only a bonus effect of

having taken the decision to determine the collection
and organisation of financial information at the
client.

The Board also doubts that the preprocessing involves
any significant processing power. Moreover, according
to claim 1, the payment card data used at the client is
transmitted together with a request type indicator (see
point 2.3 above). Hence, there is no complete
processing of the payment card data at the client side.
The host still needs to process payment card data, e.g.
by looking up rate information from a respective lookup
table.

3.13   In the absence of any technical contribution beyond the
        straight-forward computer-implementation, the subject-
        matter of claim 1 does not involve an inventive step
        (Article 56 EPC) over the disclosure of D1 combined
        with the skilled person's common general knowledge in
        the field of distributed computing.

        Auxiliary request

4.   Claim 1 according to this request further specifies the
        processing logic by extracting from the payment card
        data either
        - the billing currency information (rate request
        message of a first type according to former dependent
        claim 3), or
        - the issuer country information (rate request message
        of a third type according to former dependent claim 5)
        or
        - in the absence of a conversion currency being
        identified in the transaction terminal a "default" rate
        request, i.e. the host has to find out the currency
        conversion rate without identification information from

the client (rate request message of a second type
according to former dependent claim 4).

4.1   The additional features only further refine the non-
        technical criteria for defining first to third types of
        rate request messages (see figure 4B, steps 330, 332,
        334) by specifying financial rules forming part of the
        requirements specification to be implemented. The
        technically skilled person would be told the financial
        dependencies of account, currencies and how to organise
        this (e.g. if one has got a country information from
        the payment data, a country code has to be sent etc.).
        The implementation of those requirements is regarded as
        obvious in view of the normal skills and the general
        knowledge of computer programming in order to solve the
        problem of efficiently and effectively implementing
        currency conversion for the same reasons given with
        regard to the main request.

4.2   Furthermore, regarding the last feature (second type of
        rate request) the host does not even receive a result
        of preprocessing from the ATM terminal. The alleged
        effect of reduced processor load at the host side is
        therefore not achieved. Therefrom it becomes apparent
        that the alleged technical advantage is not always
        achieved by the claimed subject-matter.

4.3   The additional features therefore do not provide for an
        inventive technical contribution beyond the straight-
        forward computer-implementation. The subject-matter of
        claim 1 according to the auxiliary request does not
        involve an inventive step (Article 56 EPC) over the
        disclosure of D1 combined with the skilled person's
        common general knowledge in the field of distributed
        computing.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Moser   W. Chandler

Decision electronically authenticated