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Datasheet for the decision
of 12 July 2016

Case Number: T 2277/11 - 3.4.03

Application Number: 01201056.7

Publication Number: 1115095

IPC: G07F7/10, G07F19/00

Language of the proceedings: EN

Title of invention:
Credit card system and method

Applicant:
Orbis Patents Limited

Headword:

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
Inventive step - (no) - mixture of technical and non-technical features

Decisions cited:
T 0641/00, T 1901/08

Catchword:

Case Number: **T 2277/11 - 3.4.03**

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 12 July 2016

Appellant: Orbis Patents Limited
(Applicant)   181 Howth Road
                          Dublin 3 (IE)

Representative: Harte, Seán Paul
                          MasterCard Worldwide
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Decision under appeal: **Decision of the Examining Division of the**
                          European Patent Office posted on 30 May 2011
                          refusing European patent application No.
                          01201056.7 pursuant to Article 97(2) EPC.

Composition of the Board:

Chairman   G. Eliasson
Members: T. M. Häusser
                    T. Bokor

Summary of Facts and Submissions

I.   The appeal concerns the decision of the examining
        division refusing the European patent application No.
        01201056 for lack of inventive step (Article 56 EPC
        1973).

II.   At the oral proceedings the appellant (applicant)
        requested that the decision under appeal be set aside,
        and a patent be granted on the basis of Claims 1-28 of
        the Main Request or on the basis of Claims 1-26 of the
        Auxiliary Request, both filed with letter dated
        10 June 2016.

III.   Reference is made to the following document:

        D3:   US 5,500,513 A.

IV.   The wording of claim 1 of the main request and of claim
        1 of the auxiliary request is as follows (board's
        labelling "(i)" and "(ii)"):

        Main request:

        "1. A method for implementing a limited-use credit card
        system, the method comprising:
            allocating (202) a limited-use credit card number
            (126);
            associating the limited-use credit card number
            (126) with a customer account number and a set of
            conditions;
            issuing the limited-use credit card number (126);
            detecting a transaction using the limited-use
            credit card number (126);
            processing the transaction in accordance with the
            set of conditions associated with limited-use

credit card number (126);

authorising (706) or denying (712) the transaction by comparing the transaction to the set of conditions associated with the limited-use credit card number (126);

characterised in that, processing the transaction further comprises:

(i)   determining (718) whether a limited-use event has occurred; and

(ii)   invalidating the limited-use credit card number (126) for all future transactions except refunds based on the limited-use event and/or the set of conditions associated with the limited use credit card number (126), which invalidation is additional to authorisation of the use which caused the use—triggered conditions subsequent."

Auxiliary request:

Claim 1 of the auxiliary request differs from claim 1 of the main request in that the association step further comprises the following feature: "the limited use credit card number being associated with a master credit card number with identical formatting to the master credit card number".

V.   With respect to inventive step the appellant argued essentially as follows:

The claimed method did not relate to a business method and the features of the claims were not inherently non-technical. The claimed method went beyond the application of limited-use credit cards and was applicable to numerous technologies. In particular, the

claimed method could be applied to any device that
required the use of a coded security step to gain
access to the device. The invention related thus to a
security method and method applicable over a large
range of fields and devices and was as such technical
in nature.

Moreover, standard credit card systems were configured
to process transactions in an end-to-end fashion and to
conform to the four party model. A transaction request
was routed from the point of sale via the merchant's
acquiring bank and the card scheme system to the
cardholder's issuing bank, where a determination of
available funds was made and an authorisation or
decline message was passed back to the point of sale
using the reverse routing of the message. The parallel
processing of the authorisation request and the
invalidation allowed for real-time invalidation of the
limited-use credit card and provided the necessary
security to the limited-use credit card. Furthermore,
the validity of the limited-use credit card could be
checked at the card scheme system or even at the
merchant's acquiring bank. It was therefore not
necessary to have a transaction request routed to the
cardholder's issuing bank. Hence, the communication
traffic of the network infrastructures and the response
time to the transaction request was reduced. The
claimed invention addressed thus more than an
administrative problem. In this respect decision
T 1901/08 provided clear guidance of the limited scope
of what constituted an administrative element of a
claim.

Regarding the claimed invention as merely an obvious
implementation of a desired method constituted an *ex-post-facto* analysis and had no basis in fact.

Document D3 contained nothing extending beyond
conventional authorisation request processing and there
was nothing in D3 to teach or suggest the parallel
processing of an authorisation request and the
invalidation of a limited use credit card number.

Accordingly, claim 1 of the main request involved an
inventive step over the prior art of a standard payment
network and also over document D3. The same reasoning
applied to claim 1 of the auxiliary request.

Reasons for the Decision

2.   Main request - inventive step

2.1   Closest state of the art

        In the decision under appeal the examining division
        started from a data processing system for processing
        credit card related data, which was considered well-
        known at the priority date of the application (see
        point 10.3 of the decision). In a communication pur-
        suant to Article 15(1) RPBA the board also raised the
        objection of lack of inventive step of the claimed
        subject-matter over document D3. The appellant argued
        inventive step in relation to both document D3 and a
        standard credit card system as the closest prior art.

        The board considers that document D3 discloses subject-
        matter that is conceived for the same purpose as the
        invention, namely for providing a method for implemen-
        ting a limited-use credit card system, and has many
        relevant technical features in common with it, as de-
        tailed below. Furthermore, it describes the implemen-

tation of authorisation processing that is based on the
use of the credit card, which is related to the objec-
tive technical problem of the present invention, as
indicated below.

Document D3 is therefore regarded as the closest state
of the art.

2.2   Distinguishing features

2.2.1   Document D3 discloses (see column 5, line 34 - column
         8, line 16; figures 7-10) computer systems for the
         automatic purchasing control, in particular using
         credit cards. A corporate card processor system 70
         comprises a CPU 72 having data storage divided up into
         individual company accounts 74, 76, 78. The credit card
         number 54 of a company account is composed of a BIN
         number 56 and the account number 58 of the company
         account. The corporate card processor 70 is connected
         to a network, such as a VisaNet network 94, which in
         turn is connected to a merchant processing network 96.
         The latter is linked to individual point-of-sale
         devices 98, which are situated at individual merchant
         locations and are configured to receive a corporate
         card and to transmit encoded card information along
         with merchant identifying information to the VisaNet
         network 94. A credit card authorisation request for a
         corporate card received by the VisaNet network 94 is
         identified from the BIN number as relating to a
         corporate card, and the authorisation request is
         transmitted to corporate card processor 70 for
         authorisation. The corporate account number can be
         determined from the credit card number. The
         corresponding account record is examined to determine
         if there are any test routines to be performed for
         authorisation purposes and report generation. For

example, a first test may be performed to determine if the account is blocked. If yes, a negative authorisation response 114 is generated. Other tests could be a country test 124 limiting the cardholder to particular countries, a merchant test 126 limiting the cardholder to particular vendors, a single transaction value test 136 limiting the value of a single transaction. If all tests are passed an approval message is generated.

2.2.2   Using the wording of claim 1 document D3 discloses a method for implementing a limited-use credit card system (since various tests have to be passed for authorisation), the method comprising:
            allocating a limited-use credit card number;
            associating the limited-use credit card number
            (corporate credit card number 54) with a customer
            account number (account number 58 of the company
            account) and a set of conditions (authorisation
            tests associated with the company account);
            issuing the limited-use credit card number (to the
            cardholder of the company account);
            detecting a transaction using the limited-use
            credit card number (at a point-of-sale device 98);
            processing the transaction in accordance with the
            set of conditions associated with limited-use
            credit card number (performing the authorisation
            tests);
            authorising or denying the transaction (generating
            an approval message or a negative authorisation
            response) by comparing the transaction to the set
            of conditions (authorisation tests) associated with
            the limited-use credit card number.

        The subject-matter of claim 1 of the main request differs from the method of document D3 in comprising features (i) and (ii) (see point IV. above). This

appraisal of document D3 is not contested by the
appellant.

2.3   Objective technical problem

2.3.1   The appellant argued that the claimed method went
         beyond the application of limited-use credit cards and
         could be applied to any device that required the use of
         a coded security step to gain access to the device.

         Moreover, standard credit card systems were configured
         to conform to the four party model. The parallel
         processing of the authorisation request and the
         invalidation allowed for real-time invalidation of the
         limited-use credit card and provided the necessary
         security to that credit card. Furthermore, the validity
         of the limited-use credit card could be checked at the
         card scheme system, so that it was not necessary to
         have a transaction request routed to the cardholder's
         issuing bank. Hence, the communication traffic of the
         network infrastructures and the response time to the
         transaction request was reduced. Reference was made in
         this respect to the decision T 1901/08.

2.3.2   The board considers that it is explicitly stated in
         claim 1 of the main request that the claimed method
         concerns a "method for implementing a limited-use
         credit card system" comprising in particular the asso-
         ciation of the credit card number with a customer
         account number, the processing of a credit card trans-
         action and the step of authorising or denying that
         transaction. Hence, there is no doubt that the claimed
         invention relates to a credit card method and not more
         generally to a method of gaining access to a device by
         means of a coded security step.

2.3.3   It is noted that claim 1 of the main request does not
         specify a step of *checking of the validity* of the
         limited-use credit card number subsequent to the
         claimed step of invalidating the limited-use credit
         card number for all future transactions except refunds.
         In particular, there is no indication that such
         checking is performed at the card scheme system or at
         the merchant's acquiring bank rather than at the
         cardholder's issuing bank.

         It is not even disclosed in the description and figures
         of the application that validity checking is carried
         out in the manner as alleged by the appellant. The
         passages cited in this respect (page 11, lines 17-22;
         page 20, lines 16-21) merely relate in the most general
         terms to data handling and routing performed in the
         present invention without any reference to checking the
         validity of the limited-use credit card after its
         invalidation.

         In view of the above, the claimed invention cannot be
         considered as having the alleged advantages of the
         invention in relation to the communication traffic of
         the network infrastructures and the response time.
         Hence, these advantages cannot be taken into
         consideration for the inventive step assessment.

2.3.4   In fact, the concern to be addressed by the present
         invention relates to preventing fraudulent use of the
         credit card by an unauthorised person. It emerges from
         the description of the application (see the last
         paragraph on page 7 and the paragraph bridging pages 12
         and 13) that in order to prevent fraud the limited-use
         credit card is envisaged to be invalidated when the
         limited-use credit card is utilised only once, when the
         accrued charges are greater than a prescribed monetary

amount, or when the frequency of use is above or below a given threshold. Moreover, the invalidation can be based on the geographical region or the purpose of use or on some combination of these separate criteria.

The corresponding considerations do not concern any technical aspects of the credit card system to be implemented but relate to retail banking and law, in particular the prevention of offences in relation to credit cards. They involve an assessment of what kind of utilisations of the credit card could be a sign of fraudulent use. For example, a stolen credit card number might be used with an unusually high frequency for its maximum exploitation by the fraudster before the credit card number is blocked. Or else the stolen credit card number might be used in specific geographical regions where the fraudster might escape detection or prosecution.

Allowing refund transactions even after the invalida-tion of the limited-use credit card number and arranging invalidation to be performed in addition to authorisation does not concern any technical issues, either, but follows from administrative considerations by the retail banker.

2.3.5   This is in contrast to the decision T 1901/08. In that case the invention related to a self-service terminal 10 comprising a card reader 28 associated with one or more sensors for detecting potentially fraudulent acti-vities and a component agent 34 for generating a war-ning signal in the event that such activities are detected. The invention addressed a particular type of fraud, namely tampering with the card-reader. Hence, in contrast to the present case, the detection of the fraud scenario relied on technical considerations. In

particular, the recognition that card reader jamming,
which was detected by a detector associated with the
card reader 28, in combination with another condition
signal of a component of the terminal 10 (such as a
request for the dispense of a large sum of money) was
indicative of a tamper attempt, relied on a technical
understanding of the operation of the terminal and its
respective components. Accordingly, the board of
T 1901/08 held that improving the tampering detection
was the objective technical problem to be solved (see
points 3.1.3 to 3.1.5 of the Reasons).

2.3.6   On the other hand, in the present invention technical
aspects first come into play with the *technical
implementation* of the desired features of the credit
card method. The objective technical problem is
therefore to implement the limited-use credit card
system in such a way as to allow invalidation of the
limited-use credit card number for all future trans-
actions except refunds based on criteria related to the
use of the credit card number, which invalidation is
additional to authorisation of the use of the credit
card.

The skilled person, a software expert with particular
knowledge of implementing credit card systems, receives
knowledge of the specific invalidation concept and the
use-related criteria as part of the task information
given to him when asked to provide a solution to the
stated objective technical problem.

Formulating the technical problem in this manner is not
based on hindsight, but merely applies the principles
of decision T 641/00, according to which, in case 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.

2.4   Obviousness

Given the stated objective technical problem, the skilled person would modify the limited-use credit card method known from document D3 in such a way as to comprise features (i) and (ii). In particular, it follows immediately from the fact that use-related criteria are employed for the invalidation of the credit card number that the occurrence of a particular event related to the use of the credit card number must be determined (feature (i)). Moreover, the technical implementation as stated in feature (ii) relating to the invalidation of the credit card number follows immediately from the statement of the objective tech-nical problem. This is particularly the case since, in relation to an *authorisation request,* the implementa-tion of a response which is based on criteria related to the use of the credit card number, namely the frequency of its use, is already known from document D3 (see for example column 11, lines 37-63).

Therefore, the subject-matter of claim 1 of the main request does not involve an inventive step (Article 52(1) EPC and Article 56 EPC 1973).

3.   Auxiliary request - inventive step

3.1   Claim 1 of the auxiliary request differs from claim 1 of the main request in that the association step further comprises the following feature: "the limited use credit card number being associated with a master

credit card number with identical formatting to the
master credit card number".

3.2   As indicated under point 2.2.1 above, the various
         credit card numbers of the individual company accounts
         74, 76, 78 disclosed in document D3 have the same
         structure and are associated with each other in that
         they belong to the same company and have common billing
         accounts. Moreover, a particular account may be
         designated as a "VIP account", for which authorisations
         are given without further authorisation testing (see
         document D3, column 7, lines 48-53). The credit card
         numbers belonging to such an account is considered a
         "master credit card number". Therefore, the additional
         feature of claim 1 of the auxiliary request mentioned
         under point 3.1 above has already been disclosed in
         document D3, as well.

         Consequently, the subject-matter of claim 1 of the
         auxiliary request differs from the method of document
         D3 in comprising features (i) and (ii) and does not
         involve an inventive step for the reasons provided
         under points 2.3 and 2.4 above (Article 52(1) EPC and
         Article 56 EPC 1973).

4.   Conclusion

         Since neither the main request nor the auxiliary
         request is allowable the appeal has to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

S. Sánchez Chiquero   G. Eliasson

Decision electronically authenticated