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Datasheet for the decision
of 23 January 2007

Case Number: T 0074/05 - 3.5.01

Application Number: 97923535.5

Publication Number: 0979472

IPC: G06F 17/60

Language of the proceedings: EN

Title of invention:
Method and system for performing automated financial
transactions involving foreign currencies

Applicant:
Citigroup Global Markets, Inc.

Opponent:
-

Headword:
Financial transactions/CITIGROUP GLOBAL MARKETS

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (no)"

Decisions cited:
T 0641/00

Catchword:
-

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Case Number: T 0074/05 **-** 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 23 January 2007

Appellant: Citigroup Global Markets, Inc.
                                    388 Greenwich Street
                                    New York NY 10013   (US)

Representative: Johansson, Lars-Erik
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Decision under appeal: **Decision of the Examining Division of the**
                                    European Patent Office posted 3 September 2004
                                    refusing European application No. 97923535.5
                                    pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: S. Steinbrener
Members: S. Wibergh
                   G. Weiss

Summary of Facts and Submissions

I.   This appeal is against the decision of the examining
       division to refuse European patent application
       No. 97923535.5.

II.   The following document will be referred to in the
       present decision:

       D2: GB-A-2 282 246.

III.   The examining division decided *inter alia* that the
       subject-matter of claim 1 in the version before it did
       not involve an inventive step (Article 56 EPC). The
       non-technical background of the invention was
       identified as performing foreign exchange transactions.
       Taking as the closest prior art common technical
       knowledge about client-server architectures, as
       exemplified by in particular D2, the examining division
       identified the technical problem as adapting such a
       client-server system to perform the desired financial
       transactions. This problem was found to be solved in an
       obvious way.

IV.   In the statement of grounds of appeal, dated
       22 December 2004, the appellants requested that the
       decision be set aside and a patent be granted on the
       basis of an enclosed set of amended claims 1-24.

V.   In a communication from the Board the opinion was
       expressed that the claims might contain subject-matter
       added in contravention of Article 123(2) EPC and that
       the technical features of claim 1 appeared to follow in
       an obvious way from the cited prior art.

VI.   By letter dated 20 December 2006 the appellants filed
       amended claims 1 to 22 according to a new main request
       and an auxiliary request.

VII.   Oral proceedings were held on 23 January 2007. The
       appellants filed a set of claims 1-24 (largely
       identical with the claims filed with the grounds of
       appeal) as their new main request. The previous main
       and auxiliary requests were maintained as first and
       second auxiliary requests, respectively.

VIII. Claim 1 according to the *main request* reads:

       "A system for performing automated financial
       transactions, comprising:
       a financial system comprising a message router (44) and
       a plurality of servers (100, 102, 104, 106, 108, 114,
       116, 118, 122, 124), related to a financial institution;
       a personal computer (10) acting as a local client
       terminal in a client-server architecture with the
       financial system in order to access the financial
       system for a transaction;
       said message router (44) providing the means by which
       the personal computer (10) and the servers (100, 102,
       104, 106, 108, 114, 116, 118, 122, 124) of the
       financial system communicate,
       characterized in that the system is arranged to handle
       transactions involving a plurality of currencies and
       the plurality of servers comprise:
       a) a security server (108) arranged to authorize access
       to the financial system for performing a transaction
       from the personal computer (10);

b) a rate server (114) arranged to provide to the personal computer (10) a plurality of currencies to be used in the transaction once access is authorized by the security server (108);

c) a foreign exchange (FX) trade server (100) that contains an account to be used in the transaction once access is authorized by the security server (108);

wherein the FX trade server (100),

- is arranged to receive a first currency and a second currency chosen from the provided currencies for the transaction and to receive desired characteristics of the transaction including a desired transaction amount,

- comprises means to determine automatically terms to be offered by the financial institution for the transaction including a rate of exchange between the first and second currencies,

- is arranged to inform the personal computer (10) of the offered transaction terms, to receive acceptance of the offered transaction terms from the personal computer (10) and to release automatically the accepted transaction terms for execution of the transaction after receiving the acceptance, and

- is arranged to limit the offered transaction terms to a specific time period."

IX.   Claim 1 according to the *first auxiliary request* reads:

"A system for performing automated financial transactions, comprising:
a financial system comprising a message router (44) and a plurality of servers (100, 102, 104, 106, 108, 114, 116, 118, 122, 124), related to a financial institution;
a personal computer (10) acting as a local client terminal in a client-server architecture with the

financial system in order to access the financial
system for a transaction;

said message router (44) providing the means by which
the personal computer (10) and the servers (100, 102,
104, 106, 108, 114, 116, 118, 122, 124) of the
financial system communicate,

characterized in that the system is arranged to handle
transactions involving a plurality of currencies and
the plurality of servers comprise:

a) a security server (108) arranged to authorize access
to the financial system for performing a transaction
from the personal computer (10);

b) a rate server (114) arranged to provide to the
personal computer (10) a plurality of currencies to be
used in the transaction once access is authorized by
the security server (108) and also is arranged to
provide a base quote for the transaction to the FX
trade server (100);

c) a foreign exchange (FX) trade server (100) that
contains an account to be used in the transaction once
access is authorized by the security server (108);

wherein the FX trade server (100),

- is arranged to receive a first currency and a second
currency chosen from the provided currencies for the
transaction and to receive desired characteristics of
the transaction including a desired transaction amount,

- is arranged to automatically add a spread to the base
quote for the transaction to form the offered
transaction terms by the financial institution for the
transaction including a rate of exchange between the
first and second currencies,

-is arranged to inform the personal computer (10) of
the offered transaction terms, to receive acceptance of
the offered transaction terms from the personal

computer (10), to automatically compare said accepted
offer against a credit limit for said user and
automatically permit release of said accepted
transaction if said accepted offer is less than said
credit limit and to release automatically the accepted
transaction terms for execution of the transaction upon
receiving the acceptance, and
- is arranged to limit the offered transaction terms to
a specific time period, within the range of 5-15
seconds."

X.   Claim 1 of the *second auxiliary request* differs from
         the first auxiliary request mainly by the FX trade
         server additionally being arranged to

         - "store a time stamped copy of said base quote with a
         unique reference number in a database", and
         - "look up and match the accepted trade against the
         base quote previously stored in its data base".

XI.   The appellants requested that the decision under appeal
         be set aside and that a patent be granted on the basis
         of claims 1 to 24 filed at the oral proceedings (main
         request) or, alternatively, on the basis of claims 1
         to 22 (auxiliary requests 1 and 2) filed as main and
         auxiliary requests with letter dated 20 December 2006.

XII.   At the end of the oral proceedings the Board announced
         its decision.

Reasons for the Decision

The main request

1.   *The invention*

1.1   Claim 1 is directed to a system for performing
        automated financial transactions. Several features in
        the claim are of a financial character and together
        constitute a foreign exchange (FX) transaction. The
        main steps of the transaction, as seen from a bank's
        point of view, are the following:

        - providing to a customer a plurality of currencies to
        be used in the transaction,
        - receiving from the customer first and second
        currencies chosen from the provided currencies as well
        as the desired characteristics of the transaction,
        including a desired transaction amount,
        - determining the terms to be offered, including a rate
        of exchange between the first and second currencies,
        - informing the customer of the transaction terms and
        receiving his acceptance within a specific time period,
        and
        - releasing the accepted transaction terms for
        execution.

1.2   The remaining features specify in particular that the
        transaction is automated and that the system comprises
        a personal computer, a message router and a plurality
        of servers performing different tasks. The actual
        exchange transaction is performed by an "FX trade
        server". A "security server" takes care of

authorizations, and a "rate server" provides the currency data.

2.   *The technical problem*

The Board agrees with the examining division that the invention should be regarded as an automation of financial transactions using a well-known server-client architecture. The wish to be able to perform an FX transaction in a less labour-intensive way than previously possible (cf the description, p.3, l.24) is a non-technical constraint which, according to decision T 641/00 - Two identities/COMVIK (OJ EPO 2003,352), may appear in the formulation of the problem as part of the framework of the technical problem that is to be solved. The technical problem is thus, as the examining division correctly concluded, how to adapt a client-server system to make it perform the desired automated transactions. In order to solve this problem the skilled person (a computer systems engineer) would investigate what kind of client-server architecture might be suitable in the circumstances.

3.   *The prior art*

D2 describes an apparatus for processing financial transactions (such as payments or exchange rate queries; p.1, l.1-8), in which users at remote work stations (microcomputers, p.9, l.8) are connected to a system of servers within a bank (p.5, l.15-27). The servers are organized as a "control unit" and a "delivery unit" (fig.1-3,4a), each containing a router (40,50). The delivery unit is connected to a bank database system (2) containing real-time financial data such as commodity

prices and deposit rates (p.5, l.3-14). Communications from the users are routed to the appropriate server for processing. The types of server include payment servers (48,56) and transaction verifying servers (46,54). The processing is distributed between servers of the same type in the control unit and the delivery unit (p.9, l.16-23).

4.   *Inventive step*

4.1   The skilled person, having been informed by a banker of the need to automate FX transactions, learns from D2 that suitable client-server architectures involve specialized servers. For example, in D2 a transaction verifying server is responsible for security and for ensuring that tolerance values are not exceeded (p.11, top). It was therefore obvious to assign the various tasks to be performed in a transaction to different servers. Moreover, a single server could hardly be expected always to cope with the entire processing. The particular server assignments set out in claim 1 are not described as being based on any technical considerations which might involve an inventive step, nor can the Board see that this is the case. The servers merely perform the tasks which FX transactions are known to involve. Obviously as many tasks as possible should be automated.

4.2   The appellants have argued that the configuration in D2 involves not one but *two* routers and not one but *two* central units (the control unit and the delivery unit). The Board notes that claim 1 is not restricted to exactly one router or exactly one server of each kind, so that this difference in fact does not exist. But

even if it did there would be no inventive step
involved in adapting the size of a server system to the
expected workload.

4.3   The Board thus concludes that the system of claim 1 is
a straightforward adaptation of a system for performing
financial transactions involving FX transactions. Thus,
it does not involve an inventive step (Article 56 EPC).

The first auxiliary request

5.   *Additional features*

Claim 1 of the first auxiliary request differs from the
main request mainly in that:
- the rate server provides a base quote for the
transaction to the FX trade server,
- the FX trade server adds a spread to the base quote,
- an accepted offer is compared against a credit limit
for the customer, and
- the time period during which the transaction terms
are offered is within the range of 5 to 15 seconds.

6.   *Inventive step*

6.1   The steps of adding a spread to a base quote, comparing
an offer against a credit limit and offering
transaction terms for a limited period are all
performed for financial or security reasons. They
merely add to the non-technical framework of the
technical problem (cf point 2 above). The task of the
systems engineer was mainly to decide which server was
most suitable to perform each step. Again, the Board

cannot see that the distribution of tasks as defined in claim 1 is based on inventive technical considerations.

6.2   The appellants have argued that setting the time period in which transaction terms are offered to between 5 and 15 seconds involves an inventive step. There is however no indication in the application that the determination of the length of this interval is based on technical considerations. It rather appears that since exchange rates may vary quickly it will be necessary for business reasons to impose a strict time limit on the offer. The optimal time period would thus be selected by a banker, and the systems engineer's task was again merely to implement that limit on the system.

6.3   Thus, the subject-matter of claim 1 of the first auxiliary request does not involve an inventive step either (Article 56 EPC).

The second auxiliary request

7.   *Additional features*

Claim 1 of the second auxiliary request adds to the first auxiliary request the features that the FX trade server
- stores a time stamped copy of the base quote with a unique reference number in its database, and
- looks up and matches the accepted trade against the base quote previously stored in its data base.

8.   *Inventive step*

As far as the time stamped copy merely serves to define a starting point for the limited time period it is a trivial feature. But the copy, together with the reference number, is also involved in the matching and verification of data. Such verification can in certain circumstances be technical. If, for example, data are transmitted over a noisy communication channel it would normally be up to the technically skilled person to devise a way to verify received data. In the present case, however, nothing in the description suggests that technical considerations have played any role for adding the means for matching an accepted trade against a base quote previously stored in the server. Thus, this feature has not been disclosed as solving a technical problem and therefore cannot contribute to an inventive step. It follows that also the system of claim 1 according to the second auxiliary request lacks an inventive step (Article 56 EPC).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

D. Sauter   S. Steinbrener

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