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Datasheet for the decision
of 10 March 2016

Case Number: T 2237/11 - 3.5.02

Application Number: 00982665.2

Publication Number: 1224630

IPC: G07B17/00

Language of the proceedings: EN

Title of invention:
Method and Apparatus for On-Line Value-Bearing Item System

Applicant:
Stamps.Com

Relevant legal provisions:
EPC Art. 56, 84

Keyword:
Claims - clarity - main request, auxilairy request 1 (no)
Inventive step - auxiliary request 2 (no)

Case Number: **T 2237/11 - 3.5.02**

D E C I S I O N
of Technical Board of Appeal 3.5.02
of 10 March 2016

Appellant: (Applicant)	Stamps.Com Suite 1040, 3420 Ocean Park Boulevard Santa Monica, CA 90405 (US)
Representative:	Maikowski & Ninnemann Postfach 15 09 20 10671 Berlin (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 24 May 2011 refusing European patent application No. 00982665.2 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	M. Léouffre
Members:	R. Lord
	W. Ungler

Summary of Facts and Submissions

I.   This is an appeal of the applicant against the decision
        of the examining division to refuse European patent
        application No. 00 982 665.2. The reasons given for the
        refusal were that the subject-matter of the main request
        and auxiliary request 3 then on file did not involve an
        inventive step (Article 56 EPC) and that auxiliary
        requests 1 and 2 contravened Article 123(2) EPC.

II.   The following document of the prior art cited during the
        procedure before the examining division is relevant for
        this decision:

        D2:   WO 98/57302 A1.

III.   Oral proceedings before the board took place on
        10 March 2016. The appellant requested that the decision
        under appeal be set aside and that a patent be granted
        on the basis of claims 1 to 19 of a main request, or if
        that is not possible, on the basis of claims 1 to 19 of
        a first auxiliary request, or on the basis of claims 1
        to 19 of a second auxiliary request, all filed with
        letter dated 29 January 2016.

IV.   Claim 1 according to the appellant's main request reads
        as follows:

        "A scalable on-line system for printing value bearing
        items comprising:
        a client system for interfacing with a plurality of
        users; and
        a scalable server system remote from the plurality of
        users and capable of communicating with the client
        system over a communication network comprising:

a database remote from the users including information about the users;

a stateless cryptographic module for authenticating the plurality of users; and

a plurality of security device transaction data records stored in the database for ensuring authenticity of the plurality of users, wherein each security device transaction data record can be processed in the server system in a stateless manner, wherein

each security device transaction data record is related to a user, wherein when the cryptographic module is loaded with the security device transaction record that cryptographic module becomes the user's postal security device (PSD), and wherein the security device transaction data record includes all data needed to restore the user's PSD to its last known state when the security device transaction data record is next loaded into the stateless cryptographic module, and wherein

the database stores a first set of one or more last database transactions and the cryptographic module stores a second set of the one or more last database transactions for comparing with the first set of the one or more last database transactions to verify each database transaction."

Claim 1 according to the appellant's auxiliary request 1 differs from that of the main request by the addition at the end of the claim of "; and wherein the cryptographic module is implemented as a hardware card", together with the consequent deletion of the word "and" earlier in the claim.

Claim 1 according to the appellant's auxiliary request 2 reads as follows:

"A scalable on-line system for printing value bearing
items comprising:
a client system for interfacing with a plurality of
users; and
a scalable server system remote from the plurality of
users and capable of communicating with the client
system over a communication network comprising:

   a database remote from the users including
information about the users;

   a cryptographic module for authenticating the
plurality of users; and

   a plurality of security device transaction data
records stored in the database for ensuring authenticity
of the plurality of users, wherein each security device
transaction data record can be processed in the server
system in a stateless manner, wherein

   each security device transaction data record is
related to a user, wherein when a user requests a postal
security device service, the cryptographic module is
loaded with the security device transaction data record
and thereby becomes the user's postal security device
(PSD), and wherein the security device transaction data
record includes all data needed to restore the user's
PSD to its last known state when the security device
transaction data record is next loaded into the
cryptographic module, wherein

   the database stores a first set of one or more last
transactions between the database and the cryptographic
module and the cryptographic module stores a second set
of the one or more last transactions between the
database and the cryptographic module for comparing with
the first set of one or more last transactions to verify
each transaction between the database and the
cryptographic module; and wherein

   the cryptographic module is implemented as a
hardware card."

V.   The appellant essentially argued as follows:

The meaning of "stateless cryptographic module" was
clear from page 4, line 24 (of the published
application), and the term was moreover expressly
defined at page 5, lines 11-13. Although "stateless"
conventionally referred to a protocol or transaction, it
was thus apparent that the meaning of this definition
was that the cryptographic module was capable of
carrying out the stateless transactions defined in the
following two paragraphs of the claim.

The meaning of the last paragraph of claim 1 of the main
request was clear, since the skilled person would have
understood it as defining the steps disclosed in the
description from page 22, line 29 to page 23, line 21.
Supporting evidence was provided by page 21, lines 9 to
21, and in current claim 6, which defined the
consequence if the two transactions do not "compare".
The skilled person would not have considered any other
interpretation, because that would have made no
technical sense.

The above two points applied also to auxiliary request
1.

Regarding claim 1 of auxiliary request 2, as far as
inventive step with respect to D2 was concerned, the
significant technical difference was that identified in
the decision under appeal, namely that the functions of
the meter box 44 and the authentication box 40 were
deliberately kept separate, requiring separate steel
boxes and separate keys, whereas in the claimed
invention these functions were combined in the
cryptographic module. The technical problem addressed by

this difference was to simplify the system. This
difference went against the explicit teaching of D2, for
instance at page 10, lines 11 to 14 and in claim 2, in
which the first two defined "means" corresponded to the
authentication box and meter box. The passages at page
11, lines 16 to 18 and in the paragraph spanning pages
12 and 13 also did not suggest modifying the system in
the manner claimed, because they related to different
parts of the system. D2 therefore provided no motivation
to the skilled person to carry out this modification, in
particular since he would have understood from D2 that
it was essential from the point of view of security to
keep the functions of the authentication box and the
meter box separate, with different keys.

Reasons for the Decision

1.   The appeal is admissible.

2.   *Main request – Clarity (Article 84 EPC)*

2.1   The term "stateless cryptographic module" as used in
        claim 1 of the main request is unclear, so that the
        claim does not meet the requirements of Article 84 EPC.
        This objection arises primarily because the adjective
        "stateless" is conventionally used in the technical
        field of computing systems to refer to a protocol or
        transaction, i.e. to a process, not to a device, as is
        the case here. The appellant has argued that it is
        nonetheless clear in context, because the overall
        purpose is disclosed at page 4, line 24 of the
        application, and in particular because at page 5, lines
        11 to 13 there is an explicit definition of what is
        meant by "stateless" in this context, i.e. that it means
        that the cryptographic module is capable of carrying out

the required stateless processes, which are in turn
defined in the claim in the two paragraphs following the
definition of the stateless cryptographic module. The
board does not find this argument convincing, because
the definitions in those two paragraphs of the claim are
already sufficient to specify that capability. Thus it
is not clear whether the word "stateless" qualifying
"cryptographic module" is merely superfluous, or whether
it is intended to indicate some further property of the
module.

2.2   The terminology of the final paragraph of the claim is
so broad that no clear meaning can be derived from it.
This objection arises in particular from the expression
"database transaction", which does not indicate which
other part or parts of the system are involved in the
transaction. It is also not clear what the relationship
is between the "first set of one or more" of those
transactions and the "second set" of them. What might
then be achieved by comparing them is thus also not
clear. The appellant has argued that the skilled person
would have understood that these must be as described in
the passage from page 22, line 29 to page 23, line 21,
since only then would the comparison enable the defined
verification to be carried out. The board does not find
this argument convincing, because the claim also does
not define the nature of the comparison or what is
verified as a result. Thus, for instance, the term
"comparison" does not necessarily imply the checking for
identity between the sets of transactions, but covers
many other less precise comparisons. It is thus also not
clear what is meant by "to verify each database
transaction". The list of data items in the application
at page 21, lines 9 to 21 is of no relevance in this
respect because it relates to verification of data at
the client, not in the database. Similarly claim 6

cannot render claim 1 clear, since it merely indicates one possible consequence of a failed comparison, without providing any more details about the transactions or the comparison (it defines merely that "the cryptographic module prevents further database transactions if the second set of the one or more last transaction stored in the cryptographic module does not compare with the first set of the one or more last transaction stored in the database"). Thus also this paragraph of claim 1 is unclear, thus not meeting the requirements of Article 84 EPC.

3.   *Auxiliary request 1 – Clarity (Article 84 EPC)*

The above applies *mutatis mutandis* to this request, since the only amendment in claim 1 of this request with respect to that of the main request is the addition of the final feature relating to the hardware card, which amendment has no influence on the objections in sections 2.1 and 2.2 above. Thus also this request does not meet the requirement for clarity of Article 84 EPC.

4.   *Auxiliary request 2 – Inventive step (Article 56 EPC)*

4.1   The board notes initially that this request includes amendments which address the objection under point 2.1 above and at least partially address that under point 2.2, such that claim 1 is at least sufficiently clear to enable a meaningful assessment of inventive step.

4.2   Concerning the disclosure in D2 with respect to the technical features of the system as defined in claim 1 of this request, the board understands that the appellant accepts the position as indicated in section 2.1 of the decision under appeal, and the board sees no reason to deviate from that conclusion. Thus there

appear to be two differences between the system of claim 1 and that of D2.

4.3   The first distinguishing feature is that in D2 the functions of the meter box 44 and the authentication box 40 are deliberately kept separate, requiring separate steel boxes and separate keys, whereas in the claimed invention these functions are combined in the cryptographic module.

4.3.1   The appellant argued, and the board accepts, that this difference can be seen as addressing the technical problem of how to simplify the system. However, the board also considers that the claimed solution would have been obvious to the skilled person, because D2 already describes in page 11, lines 12 to 18 and page 12, line 27 to page 13, line 7 that although separation of the functions, and the associated use of different keys, is beneficial (implicitly from the point of view of security), it is nonetheless possible to use the same keys. The board considers that it would be obvious to the skilled person that this consideration applied not only to the specific circumstances described in those passages but also to the meter box and the authentication box, such that it would be obvious to combine them, thus arriving at a cryptographic module according to the present claim.

4.3.2   The appellant argued that this would not have been obvious to the skilled person because such a modification was directly contrary to the teaching of D2, not only in the two passages cited above, but also in page 10, lines 11 to 14 and claim 2. The board agrees that D2 does indeed teach that the separation of the functions of the authentication box and the meter box is important from the point of view of security. However,

the system according to the present claim is understood
to simply accept the resultant loss of security, and
therefore the board sees this modification with respect
to D2 as representing nothing more than a simple trade-
off between security and complexity, with D2 preferring
a higher security at the cost of higher complexity,
whereas the claimed system accepts reduced security as
the price for simplicity. In the view of the board such
a trade-off would be obvious to the skilled person.

4.4   The other distinguishing feature is the final one of the
        claim, i.e. that the cryptographic module is implemented
        as a hardware card. In the decision under appeal, this
        feature was addressed in section 6 in the context of the
        then third auxiliary request. The examining division
        concluded that the addition of this feature would have
        been obvious to the skilled person. Since the board
        considers the reasoning in that decision to be
        convincing, and since the appellant has not presented
        any further arguments in this respect during the appeal
        procedure, it follows that this feature cannot
        contribute to the presence of an inventive step in the
        claimed subject-matter.

4.5   The board therefore concludes that the subject-matter of
        claim 1 of the appellant's auxiliary request 2 does not
        involve an inventive step according to Article 56 EPC.

5.   Thus, for the above reasons, none of the appellant's
        requests is allowable, so that the appeal has to be
        dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

U. Bultmann   M. Léouffre

Decision electronically authenticated