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**Datasheet for the decision  
of 19 April 2021**

**Case Number:** T 1420/16 - 3.4.03  
**Application Number:** 10858489.7  
**Publication Number:** 2601627  
**IPC:** G06Q30/00, G06Q40/00, H04L12/24  
**Language of the proceedings:** EN

**Title of invention:**

TRANSACTION PROCESSING SYSTEM AND METHOD

**Applicant:**

Ent. Services Development Corporation LP

**Relevant legal provisions:**

EPC Art. 123(2), 56  
RPBA Art. 12(4)  
RPBA 2020 Art. 13(2)

**Keyword:**

Amendments - main request and first auxiliary request - added subject-matter (yes)  
Late-filed request - second auxiliary request - admitted (no)  
- third auxiliary request - admitted (no) - fourth auxiliary request - admitted (yes)  
Inventive step - fourth auxiliary request (yes)

**Decisions cited:**

T 1108/10, T 1212/08, T 0273/11



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Case Number: T 1420/16 - 3.4.03

**D E C I S I O N**  
**of Technical Board of Appeal 3.4.03**  
**of 19 April 2021**

**Appellant:** Ent. Services Development Corporation LP  
(Applicant) 11445 Compaq Center Drive West  
Houston, TX 77070 (US)

**Representative:** Prock, Thomas  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted on 24 November  
2015 refusing European patent application No.  
10858489.7 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman** S. Ward  
**Members:** M. Ley  
G. Decker

## Summary of Facts and Submissions

I. The appeal is against the decision of the examining division to refuse European patent application No. EP 10 858 489.7 on the ground that the subject-matter of claims 1 to 15 of a main request, of a first auxiliary request and of a second auxiliary request lacked an inventive step (Article 56 EPC) in view of a known general purpose computer.

The decision cited the following document:

D1 US 2003/101113 A1

II. The appellant requests that the decision be set aside and a European patent be granted on the basis of a main request, a first or a second auxiliary request, all filed with the statement of grounds of appeal, a third auxiliary request filed with a letter dated 19 March 2021 or a fourth auxiliary request filed during oral proceedings before the Board at 16:14 hrs.

III. In a communication pursuant to Article 15(1) RPBA 2020 dated 7 February 2020, the Board informed the appellant about its provisional opinion that the main request and the first auxiliary request were not allowable (see sections 4.1.3, 4.1.4, 4.2, 4.3 and 5.1) and that the second auxiliary request should not be admitted into the proceedings under Rule 12(4) RPBA 2007.

IV. Claim 1 according to the **main** request has the following wording (Board's labelling):

A transaction processing system comprising:

**(a)** a transaction analyzer for determining characteristics of a received electronic transaction;

(b) a processing agent selector for selecting, based on the determined characteristics, a processing agent for processing the received electronic transaction,

(b1) the processing agent describing or defining a set of processing operations to be performed by a computing device;

(c) a dispatcher for dispatching the received electronic transaction and the selected processing agent to a processing resource to cause the electronic transaction to be processed in accordance with the selected processing agent on the processing resource,

(c1) the dispatcher to access the processing resource over a network.

Claim 1 according to the **first** auxiliary request has the following wording:

A transaction processing system comprising:

a transaction analyzer for determining characteristics of a received database transaction;

a processing agent selector for selecting, based on the determined characteristics, a processing agent for processing the received database transaction, the processing agent being a software application, software agent, intelligent software agent, computer program or applet;

a dispatcher for dispatching the received database transaction and the selected processing agent to a processing resource to cause the database transaction to be processed in accordance with the selected processing agent on the processing resource, wherein the processing resource is a laptop or desktop computer.

Claim 8 according to the **second** auxiliary request has the following wording (Board's labelling):

A method of processing a transaction using a set of processing resources, comprising:

- (A) receiving a transaction to be processed;
- (B) determining characteristics of a received transaction, the characteristics including a transaction type and a nature of processing required to be performed on the transaction
- (C) determining, based on the characteristics of the received transaction, a plurality of processing agents for processing the transaction, the processing agents comprising a software application, software agent, intelligent software agent, computer program, or applet,
- (D) wherein at least one of the processing agents is created by the processing agent selector selecting and combining, based on the determined transaction characteristics, a plurality of processing agent elements from a library of predetermined processing agent elements,
- (E) determining, based on the characteristics, a relevancy rating for each of the selected processing agents,
- (F) selecting a processing agent based on the relevancy rating,
- (G) modifying the selected processing agent in accordance with the determined transaction characteristics if the relevancy rating is below a predetermined level;
- (H) combining the selected determined processing agent and the received transaction; and
- (I) sending the combined processing agent and transaction to one of a set of processing resources to

cause the processing agent to process the transaction on the processing resource.

Claim 1 of the **third** auxiliary request has the following wording:

A transaction processing system comprising:  
a transaction analyzer for determining characteristics of a received electronic transaction;  
a processing agent selector for selecting, based on the determined characteristics, a processing agent for processing the received electronic transaction, the processing agent being a software application, software agent, intelligent software agent, computer program or applet;  
a dispatcher for dispatching the received electronic transaction and the selected processing agent to a processing resource in a set of processing resources to cause the electronic transaction to be processed in accordance with the selected processing agent on the processing resource, wherein:  
the dispatcher is configured to access the processing resource over a network; and  
the dispatcher is configured to determine processing resource characteristics of at least some of the set of processing resources; and send the combined processing agent and electronic transaction to a processing resource having a determined processing resource characteristic below a predetermined threshold level.

Claim 1 according to the **fourth** auxiliary request has the following wording:

A transaction processing system comprising:  
a transaction manager; and  
a set of processing resources;

the transaction manager comprising:  
a transaction analyzer for determining characteristics of a received electronic transaction;  
a processing agent selector for selecting, based on the determined characteristics, a processing agent from a library of predetermined processing agents, the processing agent for processing the received electronic transaction, the processing agent being a software application, software agent, intelligent software agent, computer program or applet;  
a dispatcher for dispatching the received electronic transaction and the selected processing agent to a processing resource in the set of processing resources to cause the electronic transaction to be processed in accordance with the selected processing agent on the processing resource, wherein:  
the dispatcher is configured to access the processing resource over a network; and  
the dispatcher is configured to determine a processing load of at least some of the set of processing resources; and send the combined processing agent and electronic transaction to a processing resource having a determined processing load below a predetermined threshold level.

V. The appellant's relevant arguments can be summarised as follows:

**(a) Main request**

The amendments made to claim 1 according to the main request were based on paragraphs [0059] and [0018] of the application as originally filed, see the statement of grounds of appeal, page 2, first to third paragraphs. A dispatcher for dispatching the received electronic transaction to a processing resource



conferred the same technical limitations as a dispatcher for dispatching it to a processing resource in a set of processing resources, see the letter dated 19 March 2021, page 1, last paragraph. A basis for omitting a step of selecting one of the processing resources based on a low processing load was paragraph [0020], see said letter, page 2, first to sixth paragraphs.

**(b) First auxiliary request**

The amendments made to claim 1 according to the first auxiliary request were based on paragraphs [0001], [0018] and [0024] of the application as originally filed.

**(c) Second auxiliary request**

Steps (C) to (G) according to claim 8 related to the selection and generation of a processing agent (see the letter dated 19 March 2021). The aspect of the selection was examined by the examining division, see sections 18 and 19 of the impugned decision. Features (C) to (G) thus represented a logical development of the discussion that was held with the examining division on inventive step and constituted a reaction to the impugned decision (in particular, to section 18, last paragraph). Reference was made to T 273/11 and Case Law of the Boards of Appeal, V.A.4.11.1. The second auxiliary request should therefore be admitted into the proceedings.

**(d) Third auxiliary request**

The third auxiliary request should be admitted into the proceedings, because it was based on the main request

and included amendments introduced in response to new objections regarding *inter alia* added subject-matter that were raised for the first time in the Board's communication. Moreover, the introduced features were present in original claims 9 and 13.

**(e) Fourth auxiliary request**

During oral proceedings, the appellant argued that the fourth auxiliary request constituted a reaction to the objections under Article 123(2) and Article 56 EPC raised for the first time by the Board in its communication pursuant to Article 15(1) RPBA 2020. The fourth auxiliary request should therefore be admitted into the proceedings.

In support of an inventive step of the main request, the appellant provided the following arguments, which the Board considers relevant for the fourth auxiliary request:

- The claimed selection step of a processing agent and the claimed dispatching step were not taught by a known general purpose computer, nor are they taught or suggested in D1. Moreover, these features were technical and provided a technical effect.
- With regard to a known general purpose computer, dispatching a transaction along with a processing agent for processing the transaction was not part of the normal operation of a general purpose computer.
- D1 related to a system for processing financial transactions, such as tax returns. In the system of D1, transaction details were provided from client

computers (50) to servers (60). There was some discussion in D1 of load balancing between servers. D1 did not appear to teach or suggest providing software to the servers (60) to be used to process the financial transaction.

- The invention provided the technical effect of reducing storage at the processing resource, because it was "not necessary for each processing resource to have a locally stored version of the processing agent", as both the transaction to be processed and the processing agent were sent/dispatched. This effect was technical in nature since it provided improvements and efficiencies in the operation of the computer system (such as a more efficient use of storage space).

During the oral proceedings, the appellant pointed out that the difference between the disclosure of D1 and the claimed invention according to claim 1 would be a processing agent selector for selecting a processing agent from a library of predetermined processing agents and a dispatcher for sending the combined processing agent and electronic transaction to a processing resource. Storage of data related to processing agents on the processing resources themselves was not necessary so that the storage of data in the transaction processing system was reduced. A further effect was that the processing agents could be updated centrally in the library. The subject-matter of claim 1 was not rendered obvious by D1.

## **Reasons for the Decision**

1. The appeal is admissible.
2. The invention

The present invention concerns the processing of electronic transactions using a network and a plurality of processing resources. An electronic transaction may include, for example, a financial transaction, such as a money transfer or withdrawal, a billing transaction, a database transaction, a shopping transaction, and so on, see paragraph [0001] of the application.

A transaction processing system comprises a transaction manager and a set of processing resources (e. g. laptops or desktop computers). After having received an electronic transaction e. g. from a client computer via a network, the transaction manager determines characteristics of the electronic transaction and selects a processing agent suitable to process the electronic transaction e. g. from a library of processing agents. Both the selected processing agent and the received electronic transaction are sent in a bundle over a network to a processing resource selected based on its processing load being below a predetermined threshold level, see paragraphs [0024], [0046] and [0059].

### **Main request**

3. Added-subject matter - Article 123(2) EPC
- 3.1 Claim 1 according to the main request differs from claim 1 as originally filed essentially by features

(b1) and (c1) and in that the transaction is qualified as an "electronic transaction".

3.2 The qualification of a transaction as an "electronic transaction" as well as feature (b1) find their basis in the application as originally filed, see paragraphs [0015] and [0018].

3.3 As regards features (c) and (c1) in claim 1, the appellant indicated paragraph [0059] as a basis.

Paragraph [0059] states that processing resources are "accessible" over a network. From paragraphs [0047] and [0048], the Board understands that this access might be used e. g. for soliciting the use of other processing resources or for using or accessing external resources. Paragraph [0059] alone does not disclose that the dispatcher according to claim 1 accesses a processing resource "over a network".

However, the Board accepts that paragraph [0059] in combination with paragraphs [0020] to [0022] and [0024] provides a basis for a step of dispatching (or sending) "over a network" the combined processing agent and received electronic transaction to one of a set of processing resources to cause the processing agent to process the electronic transaction on the processing resource, whereby the selection of the processing resource "may be made using various criteria or characteristics of the processing resource" (see paragraph [0022]). However, among these passages it is only paragraph [0024] which discloses a transaction processing system using what could be described as a "network" (a plurality of computing devices in an enterprise environment). According to this example, it is specifically the processing load (see paragraph

[0024]) of at least some of the set of processing resources which is determined. One of the set of processing resources having a processing load determined by the dispatcher to be below a predetermined threshold is then selected, see paragraph [0022], [0024] or [0046] or claims 13 and 14 as originally filed.

In other words, the Board is of the view that, according to the application as originally filed, a network according to feature (c1) necessarily implies multiple processing resources, from which one is selected in view of its low processing load as described in paragraphs [0022], [0024] and [0046], and that the combined determined or selected processing agent and received electronic transaction are dispatched to the selected processing resource on the basis of this criterion.

The appellant's argument (see point V.(a), first paragraph, above) that a dispatcher sending data to one processing resource corresponds to a dispatcher sending data to one of a set of processing resources is not persuasive, because in the Board's view the dispatcher disclosed in the embodiment of paragraph [0024] performs a selection of said one processing resource based on its processing load, whereas the claimed dispatcher does not and is not configured to perform any selection. Although - as pointed out by the appellant - paragraph [0020] does not mention said selection step, once a network for accessing a plurality of processing resources is used, the dispatcher has to select from among them a processing resource to process the electronic transaction, see paragraph [0024], said selection being based on the processing resource's processing load.

As claim 1 merely requires one single processing resource (see feature (c)) and thus does not include any step of selecting one of a set of processing resources based on its low processing load, the requirements of Article 123(2) EPC are not fulfilled for claim 1.

In view of the above conclusion, there is no need for the Board to enter into the question of inventive step for the main request.

#### **First auxiliary request**

##### 4. Added-subject matter - Article 123(2) EPC

Claim 1 according to the first auxiliary request differs from claim 1 as originally filed essentially in that the transaction is qualified as a "database transaction", the processing agent is a software application, software agent, intelligent software agent, computer program or applet, and in that the processing resource is a laptop or desktop computer.

The appellant identified paragraph [0024] as a basis for the feature "the processing resource is a laptop or a desktop computer" in claim 1.

However, as already discussed above, paragraph [0024] relates to a configuration where a plurality of processing resources (laptops or desktop computers) are present in a companies' network of employee's computer devices and are accessed by the dispatcher over this network, see section 3.3 above. Claim 1 does not define any network, and therefore encompasses the possibility that a single desktop computer or laptop includes the transaction analyzer, the processing agent selector,

the dispatcher, the processing agents and the processing resource, but without any network.

Hence, the requirements of Article 123(2) EPC are not met.

### **Second auxiliary request**

5. The Board notes that a method comprising features (C) to (G), and in particular involving a relevancy ranking, has not been assessed by the examining division during the examination procedure. The Board reminds the appellant that appeal proceedings are not a continuation of examination at first instance or a second, parallel procedure for the substantive examination otherwise to be carried out by the examining division (see e. g. T 1108/10 and T 1212/08).

The Board notes that none of the claims as originally filed or of the claims amended during the examining procedure was directed to the steps of determining a relevancy rating for a plurality of selected processing agents, of selecting one processing agent based on said relevancy rating and, possibly, of modifying said one selected processing agent if its relevancy rating is too low (steps (C), (E) to (G) in claim 8). The amendments made to the independent claims during the examining procedure were more focused on the technical nature of the transaction and the processing agent, see e. g. claims 1 and 11 of the first auxiliary request underlying the impugned decision. The amendments made to the claims according to the main request and the first auxiliary request filed with the statement of grounds of appeal concerned the way the dispatcher assesses the selected processing resource.



With respect to feature (D), the idea of generating a processing agent from a library of processing agent elements can be found in claim 3 as originally filed. However, this aspect was never present in an independent claim during the examining procedure.

Thus, it cannot be said that features (C) to (G) form a logical development of the discussion before the examining division. On the contrary, they introduce new aspects that were never discussed before.

Therefore, the Board is of the view that the appellant could and should have filed the second auxiliary request before the examining division, and the failure to do so prevented the examining division from taking a decision on the second auxiliary request.

Consequently, during oral proceedings the Board decided to not take into account the second auxiliary request according to Article 12(4) RPBA 2007.

### **Third auxiliary request**

6. The set of claims according to the third auxiliary request was filed with the letter dated 19 March 2021, after notification of a summons to oral proceedings.

According to Article 13(2) RPBA 2020 in conjunction with Article 25(3) RPBA 2020, any amendment to a party's appeal case made after notification of a summons to oral proceedings shall, in principle, not be taken into account unless there are exceptional circumstances, which have been justified with cogent reasons by the party concerned.

The Board is not convinced by the appellant's justification (see point V.(d) above). Claims 1 and 10

neither specify any selection criterion, i. e. the processing load of the processing resources, nor that the processing agents are centrally stored. The amendments made clearly do not overcome the objections raised against the main request or the first auxiliary request. Moreover, the present wording of claim 1 leaves it open whether the processing resources are a part of the claimed transaction processing system or not so that claim 1 is *prima facie* not clear (Article 84 EPC). Finally, it is doubtful if the term "processing resource characteristic" is clear for the skilled person and if the features according to the five last lines of claim 1 could solve a technical problem and support an inventive step; the "characteristic" of the processing resource could even be a non-technical characteristic.

Thus, the amendments made to the third auxiliary request do not overcome the issues raised by the Board and give rise to new objections. There are no exceptional circumstances that would justify the admission of the claims according to the third auxiliary request. Consequently, during oral proceedings the Board decided to not take into account the third auxiliary request according to Article 13(2) RPBA 2020.

#### **Fourth auxiliary request**

##### **7. Admission - Articles 13(2) and 25(3) RPBA 2020**

The set of claims according to the fourth auxiliary request was filed during oral proceedings after the general discussion with the Board about the higher-ranking requests. The Board accepted that the amendments made to the fourth auxiliary request

overcame all issues raised in the Board's communication for the first time and discussed during oral proceedings so that the fourth auxiliary request constituted patentable matter. Although it would have been preferable for the appellant to file the fourth auxiliary request already prior to the oral proceedings (e. g. with the letter dated 19 March 2021), the Board takes the view that filing a set of claims which obviously overcomes all outstanding objections and thus meets the requirements of the EPC - even when filed during the oral proceedings - represent special circumstances that give the Board a discretion to take into account said claims.

The Board therefore exercised its discretion under Articles 13(2) and 25(3) RPBA 2020 in admitting the fourth auxiliary request into the proceedings.

8. Basis in the original application - Article 123(2) EPC

The Board is satisfied that original claims 1, 2, 13 and 14 together with paragraphs [0015], [0018], [0020], [0021], [0024], [0046], [0059] provide a basis for amended device claim 1. Similarly, method claim 8 finds its basis in original claims 11 to 14 and the paragraphs mentioned before.

9. Inventive step - Article 56 EPC

9.1 The examining division held that claim 11 of the first auxiliary request underlying the decision is directed to an administrative scheme representing an abstract plan for processing a transaction implemented on electronic means. The objective technical problem was therefore to automate the method described above, which was solved in an obvious way by using a notorious

computer. The examining division concluded that the subject-matter of the independent claims of this request did not involve an inventive step.

- 9.2 The Board shares the appellant's view that dispatching a transaction along with a processing agent for processing the transaction to a processing resource via a network is not part of the normal operation of a general purpose computer. Moreover, distributing the processing load over a plurality of processing resources (e. g. the pre-existing internal network of a company) by sending both the electronic transaction and the required centrally stored software (i. e. processing agent) to a selected processing resource (e. g. a computer) relates to decisions on where the processing is to be done, where the software is to be stored etc., which are the province of an engineer, not a business person.

In the Board's view, in this case, document D1 is more suitable as the closest prior art than a notoriously known general purpose computer.

- 9.3 D1 concerns a system 100 for processing taxable financial transactions 11 received from subscriber servers 50 via the internet 20, see paragraphs [0052] or [0060], "receiving a tax computation transaction request from subscriber server 50". The system comprises a load balancing and scalability system 70 that detects the current data load or volume entering the system and, if appropriate, redirects the destination of data transfer for optimum system operation and management, see paragraphs [0059] and [0063]. The load balancing and scalability system 70 directs the data related to the financial transaction to the primary/host servers or to the secondary/standby

servers, see figures 1, 1A or 2, paragraphs [0072] to [0074]. Either the primary or the secondary servers then process the financial transaction using appropriate software (i. e. a processing agent).

In D1, a processing agent is thus selected in the processing resource itself and "combined" with the electronic transaction, when the processing by the processing resource takes place. Only the electronic transaction is dispatched, the software for processing a transaction is locally stored on each of the respective processing resources responsible for processing the transactions.

- 9.4 Hence, the Board agrees with the appellant that the subject-matter of claim 1 differs from D1 by a processing agent selector for selecting, based on the determined characteristics, a processing agent from a library of predetermined processing agents and by a dispatcher for dispatching the received electronic transaction and the selected processing agent to a processing resource in the set of processing resources to cause the electronic transaction to be processed in accordance with the selected processing agent on the processing resource.
- 9.5 The Board accepts the appellant's argument that storing predetermined processing agents in a library and dispatching the required processing agent in a bundle with an electronic transaction to an processing resource avoids the need to provide a version of the software on each computer device of the network so that memory space is saved, which provides an improvement in the computer system's functioning. A further advantage is that the processing agents can be updated centrally.

An additional effect might be the increase of security, as described in paragraph [0062] of the application.

- 9.6 A skilled person, wishing to reduce storage space, would find no hint in the prior art considered in the examination proceedings to modify the system of D1 so as to arrive at the claimed invention. Thus, an inventive step (Article 56 EPC) is acknowledged for the transaction processing system of claim 1 and, by analogous reasoning, for the method of processing an electronic transaction of claim 8.

## Order

### For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the examining division with the order to grant a patent in the following version:

Claims: Nos. 1 to 8 according to the fourth auxiliary request filed in the oral proceedings before the Board at 16.14 hrs.

Description: to be adapted thereto.

Drawings: Sheets 1/4 to 4/4 as published.

The Registrar:

The Chairman:



S. Sánchez Chiquero

S. Ward

Decision electronically authenticated