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Datasheet for the decision of 31 January 2019

Case Number: T 1082/13 - 3.5.01

Application Number: 06118708.4

Publication Number: 1760656

IPC: G06Q40/00

Language of the proceedings: EN

Title of invention:
A computer system and computer implemented method for applying tax legislation

Applicant:
SAP SE

Headword:
Computer implemented system offering replacement services for applying tax legislation/SAP

Relevant legal provisions:
EPC Art. 52(2), 52(3), 56
Case Law of the Boards of Appeal of the European Patent Office, 9th Edition, I.A.1.4.1 Assessment of the invention independently of the prior art

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Keyword:
Inventive step - forwarding a UDDI request for a tax calculation to another service after a timeout (no - part of business requirement) - automatically choosing a replacement system (no - common general knowledge)

Decisions cited:
G 0003/08, T 1173/97, T 0641/00, T 0258/03, T 1463/11

Catchword:
1. The assessment of technical character of a claim does not require a reference to the prior art following the established "whole contents approach" (see reasons, point 1.1).

2. A "timeout" condition claimed in general and broad terms that cover non-technical interpretations is in the domain of the non-technical person and part of the requirements specification given to the technical expert for implementation on a computer system (see reasons, point 2.4).

3. The "notional business person", as introduced in T1463/11, is to be interpreted within the framework of the well established COMVIK-approach according to T0641/00. Consequently, the notional business person knows all about the business related requirements specification and knows about the fact that such business related concepts can be implemented on a computer system. The choice of where to do a calculation in a distributed system is not necessarily technical, but can also be driven by administrative considerations. What the notional business person does not know, however, is how exactly it can be implemented on a computer system. This is in the sphere of the technical expert and subject to the assessment of inventive step.

4. When referring to prejudices, it has to be carefully analysed, whether it is actually a technical prejudice or, in fact, a business prejudice (e.g. just a new way of organising a business transaction that goes against traditional ways of organising it - see reasons, point 4.8).

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Case Number: T 1082/13 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 31 January 2019

Appellant: (Applicant)	SAP SE Dietmar-Hopp-Allee 16 69190 Walldorf (DE)
Representative:	Richardt Patentanwälte PartG mbB Wilhelmstraße 7 65185 Wiesbaden (DE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 13 December 2012 refusing European patent application No. 06118708.4 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman	W. Chandler
Members:	M. Höhn
	C. Schmidt

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division, refusing European patent application No. 06118708.4 pursuant to Article 97(2) EPC on the ground of lack of inventive step (Article 56 EPC) with regard to prior-art publication:

D3: INTERNATIONAL BUSINESS MACHINES CORPORATION: "Service recommendation system for the web-services broker", RESEARCH DISCLOSURE, MASON PUBLICATIONS, HAMPSHIRE, GB, vol. 454, no. 121, February 2002, ISSN: 0374-4353.

II. 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 refused request filed with letter dated 27 September 2012. Alternatively, it was requested to remit the case to the first instance for further examination. Oral proceedings were requested on an auxiliary basis.

III. In the annex to the summons to oral proceedings, the Board expressed its preliminary opinion that the request lacked inventive step (Article 56 EPC).

IV. In a reply, the appellant provided further arguments in favour of inventive step of the independent claims.

V. Oral proceedings were held on 31 January 2019. The appellant confirmed the above-mentioned request. After due consideration of the appellant's arguments the Chairman announced the decision.

VI. Independent claim 3 of the sole request reads as follows:

"3. A computer implemented method for applying tax legislation to a transaction comprising:
- receiving a request (118; 318) for performing a tax calculation via a network, the request carrying a first mark-up language document (108) containing transaction data,
- performing the tax calculation,
- generating a response (144; 344'), the response carrying the first mark-up language document and a result of the tax calculation,
- forwarding the request to a replacement system (304', 336') via the network, if the means for performing the tax calculation and/or the means for generating the response are unavailable,
wherein the replacement system is determined by:
- submitting a predefined UDDI query to a UDDI registry (700) via the network;
- receiving a response to the UDDI query, the response comprising an indication of a plurality of potential replacement web services (702);
- calculating a ranking value for each web service of the plurality of potential replacement web services (704);
- sorting the plurality of potential replacement web services (706) by ranking value to provide a sorted table (660);
- storing the sorted table (708);
- determining the replacement system as the highest ranking web service in the sorted table (710),
- determining whether a response to the forwarding of the request to the replacement system is received before a timeout condition is met, wherein in case of meeting the timeout condition the highest ranking web

service is deleted from the sorted table and said steps of
- determining the replacement system as the highest ranking webservice in the sorted table (710) and
- determining whether a response to the forwarding of the request to the replacement system is received before a timeout condition is met are repeatedly carried out."

VII. The appellant's arguments are dealt with in detail in the reasons for the decision.

Reasons for the Decision

1. Technical character

1.1 Following the well established "whole contents approach", the claimed subject-matter must comprise at least one technical feature in order to have technical character as a whole. In contrast to the appellant's argument criticising the contested decision for considering the technical character without taking into consideration the prior art (see e.g. page 3, first paragraph of the letter dated 22 November 2018), the Board notes that the assessment of technical character of a claim does not require a reference to the prior art. The so-called "contribution approach" has been abandoned (see G03/08, OJ 2011, 10; T1173/97; Case Law of the Boards of Appeal of the European Patent Office, 9th Edition, I.A.1.4.1 Assessment of the invention independently of the prior art).

1.2 According to the Board's understanding of the decision under appeal, however, neither claim 3 nor claim 1 was held to lack technical character, but the application was refused since claim 3 was held to lack inventive step (Article 56 EPC).

The Board concurs with the contested decision that the subject-matter of independent claims 1 and 3 both have technical character and are not precluded by Article 52(2) and (3) EPC.

Claims 1 and 3 are both directed to a mix of technical and non-technical features. Claim 1 is directed to an apparatus and, hence, has technical character already because of its category. The Board does not dispute that the method according to claim 3 appears in a technical context as well. The method is computer implemented and can be considered to be performed by technical means, because it involves a computer and a network and, therefore, has technical character. Accordingly, the claimed subject-matter of claims 1 and 3 is an invention in the sense of Article 52(1) EPC (see T 258/03 "Auction method/HITACHI").

2. Article 56 EPC - Inventive step

2.1 However, an invention consisting of a mixture of technical and non-technical features and having technical character as a whole is to be assessed with respect to the requirement of inventive step by taking account of all those features which contribute to said technical character whereas features making no such contribution cannot support the presence of inventive step (see T 641/00 "Two identities/COMVIK", Headnote I).

2.2 The Board agrees with the contested decision outlining those features of claim 3 making no such contribution to said technical character (see point 9.2 of the contested decision), which were "per se" considered to pertain to an administrative concept, i.e. to the non-technical part of claim 3. In the Board's view they specify an abstract concept for finding a replacement service for performing tax calculations, which a human person might follow as a manual scheme by going through a list of services starting from the most suitable and, if not available within a certain period of time (e.g. 1 hour, a day etc.), taking the next best service on the list and so on.

These features are as follows:
A method for applying tax legislation to a transaction comprising:
- receiving a request for performing a tax calculation, the request carrying a first document containing transaction data,
- performing the tax calculation,
- generating a response, the response carrying the first document and a result of the tax calculation,
- forwarding the request to a replacement service, if the means for performing the tax calculation and/or the means for generating the response are unavailable,
wherein the replacement service is determined by:
- submitting a query;
- receiving a response to the query, the response comprising an indication of a plurality of potential replacement services;
- calculating a ranking value for each service of the plurality of potential replacement services;
- sorting the plurality of potential replacement services by ranking value to provide a sorted table;
- storing the sorted table;

- determining the replacement as the highest ranking service in the sorted table,
- determining whether a response to the forwarding of the request to the replacement is received before a timeout condition is met, wherein in case of meeting the timeout condition the highest ranking service is deleted from the sorted table and said steps of
- determining the replacement as the highest ranking service in the sorted table and
- determining whether a response to the forwarding of the request to the replacement is received before a timeout condition is met are repeatedly carried out.

It is the automation of this abstract concept using a networked computer system, web services and UDDI queries, that renders claim 3 technical.

2.3 It is common ground that D3 is the closest prior art and describes a computer infrastructure providing a web service broker that acts as an intermediary between a service requester and a service provider. D3 discloses the technical features of claim 3, namely a networked computer system, use of the Internet, WebServices client and server, UDDI queries and registry (see e.g. D3, page 1, paragraphs 1 to 3). Even if mark-up language documents are considered to be technical, which the Board doubts, their use is implied by D3, which refers to SOAP, which uses XML documents.

In addition, D3 discloses a Service search engine, a Recommendation engine, calculation of a ServiceRank, and arranging the search results as a ranked list (see e.g. D3, page 1, section "Details of this technology" and figures 4 and 5; paragraphs I-1 and I-2). ServiceRanks can be re-computed and updated (see

paragraph II-8), i.e. the ranked list is a sorted table.

2.4 The claimed subject-matter differs from the disclosure of D3 by the following details of the abstract concept for finding a replacement service for performing tax calculations:

a) the services are tax calculations,
b) instead of choosing a service manually according to D3 (see paragraph I-6), a replacement service is automatically chosen in case of unavailability, and
c) a timeout criterion is used for detecting unavailability and updating the ranked list.

The Board judges that distinguishing features a) and c) do not contribute to the technical character of claim 3 and form part of the abstract concept as set out above, while distinguishing feature b) regarding an automation directly follows from the computer implementation of the method and is an obvious consequence of using a computer system.

In contrast to the appellant's argument, the Board does not regard a timeout in the general context of claim 3 to be a technical feature. It is so general that it also covers non-technical interpretations, such as a requester telling the service broker to choose the preferred service provider and not waiting forever if nothing happens and no reply is received. Also the application discloses that the timeout is set on the service consumer side (see figure 3, elements 302 and 346). The Board takes this as an indication that the timeout criterion is in the domain of the non-technical person and, hence, is part of the requirements

specification given to the technical expert for implementation on a computer system.

3. The objective technical problem to be solved is therefore considered to be the implementation of the distinguishing features according to the abstract concept on the computer infrastructure according to D3.

3.1 In the Board's view the person skilled in the art within the meaning of Article 56 EPC, a computer expert provided with the complete description of the non-technical abstract concept for finding a replacement service, would have considered the claimed implementation obvious in view of the normal skills and the general knowledge of computer programming. There are no surprising technical effects or technical obstacles identifiable, which would have to be overcome or could create a further technical effect.

4. Appellant's further arguments

4.1 Even if a timeout condition was considered to be technical, as argued by the appellant, it is still triggered by the business requirement (unavailability of the preferred service) and would be an obvious implementation detail. Whenever a time related criterion is to be implemented on a computer system, the skilled programmer knows from the common general knowledge that a kind of timer element has to be used. The wording of claim 3 does not further specify the timeout in a way that causes a particular technical advantage or surprising effect.

4.2 The appellant argued that D3 did not disclose the feature of forwarding a request to a replacement system in case a failure happens (see e.g. page 4, last

paragraph, to page 5 of the letter dated 22 November 2018). However, no such technical failure is specified in claim 3, which only refers to a service being "unavailable". This covers the case that a service provider does not reply for non-technical reasons, e.g. for holiday reasons. There is no link to a technical failure or an improvement of a service provider's computer system in a technical sense.

As has been argued above, the forwarding of a request to a replacement system is not disclosed in D3, but since it is considered not to contribute to the technical character of claim 3, it cannot be considered when assessing inventive step. Following the COMVIK-approach, it can therefore be considered to be part of the requirements specification given to the technical expert.

4.3 The Board furthermore does not agree with the technical problem formulated by the appellant as increasing the availability of the system of D3 for enabling tax calculation. Neither the claims, nor the description give details as to what technical measures should be provided in order to make a service provider's computer system more reliable from a technical point of view. On the contrary, a service provider not responding within a certain period of time is skipped and another one is contacted instead. Even if the appellant's problem was correct, which in the Board's view is not the case, this problem would only be circumvented rather than solved by technical means.

4.4 During oral proceedings the appellant argued that the services provided by D3 could not be regarded as replacement services, since those were not identical, in contrast to claim 3. The Board does not agree. The

services according to claim 3 cannot be totally identical either, otherwise no ranking would be possible.

4.5 The appellant argued that the invention limited the number of registry lookups to a maximum number of one. However, the Board considers it to be part of the non-technical concept as well as known from D3 (see e.g. section I-2) to query the registry once with a locally stored predefined query in order to obtain a list of all potentially relevant services and then to use this list in subsequent service selection steps (see bottom of page 9 of the statement setting out the grounds of appeal).

4.6 The contribution of the invention does not lie in an improved apparatus either, in contrast to the appellant's arguments. The technical infrastructure used in claim 1 is that disclosed in D3. The contribution lies rather in the way the known components are programmed, i.e. that the method steps according to claim 3 are implemented on the known hardware. The fact that the step of performing tax calculations is not explicitly specified in claim 1 does not change this, since the rest of the method is abstract and regarded as non-technical, since information is associated with business related data, namely UDDI queries representing services. Such data, however, in the Board's view, is not technical, since it is cognitive data, not functional data (see T 1194/97 Data structure product/PHILIPS, OJ EPO 2000, 525). Storage, selection and processing of such data is an administrative measure, such as would be performed by a human, implemented with general purpose computer functions (e.g. ranking, sorting, submitting, storing

and retrieving information in electronic form) without creating a further technical effect.

The fact that the steps of submitting, ranking, sorting, selecting and forwarding are performed automatically is an obvious consequence of using a computer system.

4.7 During oral proceedings the appellant referred to decision T 1463/11 (CardinalCommerce) and argued that the present invention was comparable to the centralisation of individual authentication initiative plug-ins in a separate server that can be accessed by several merchant servers, which was held to be technical and non-obvious (see reasons, point 21). However, in T 1463/11 the alleged non-technical idea (centralising authentication services) only arose in connection with technical aspects (avoiding maintenance of software plug-ins in merchant computers). In the present case, as explained above, the idea of the timeout functionality comes from the business requirements that do not involve any technical knowledge.

4.8 The appellant also argued that a distributed computer system is a complete black-box for the non-technical person so that he would not be able to conceive of any aspects of the invention that would subsequently have to be implemented in the computer, such as a timeout. However, what has been referred to above as the quasi-technical term "timeout" really originates from the business person as the requirement of not waiting too long for a response. The technically skilled person translates this requirement into a "timeout" involving a timer element as a matter of routine design as mentioned above.

Moreover, the notional business person cannot be assumed to be so blind that he does not even know about the existence of computers or the Internet. The notional business person, as introduced in T 1463/11, is to be interpreted within the framework of the well established COMVIK-approach of T 641/00 (see T 1463/11, reasons of the decision, point 16 "... in line with the Comvik principle..."). Consequently, the notional business person knows all about the business related requirements specification and knows about the fact that such business related concepts can be implemented on a computer system (stand-alone or networked, including the Internet). What the notional business person does not know, however, is how exactly it can be implemented on a computer system. This is in the sphere of the technical expert and subject to the assessment of inventive step.

The choice of where to do a calculation in a distributed system is not necessarily technical, but can also be driven by administrative considerations (e.g. where the data is needed, collected or to be presented etc. following the business requirements specification). When referring to prejudices, it has to be carefully analysed, whether it is actually a technical prejudice or, in fact, a business prejudice (e.g. just a new way of organising a business transaction that goes against traditional ways of organising it etc.). In the present case and in view of the subject-matter according to claim 3, the Board does not see any such technical prejudice, which might have had to be overcome in a non-obvious way similar to what was decided in decision T 1463/11.

4.9 The appellant's arguments provided with the statement setting out the grounds of appeal, with letter dated 22 November 2018 and during oral proceedings do not convince for the aforementioned reasons.

4.10 Accordingly, the Board judges that in the absence of any technical contribution beyond the straight-forward computer-implementation, the subject-matter of claim 3 does not involve an inventive step (Article 56 EPC) over the teaching of D3 combined with the skilled person's common general knowledge.

The sole request therefore does not fulfil the requirements of the EPC.

5. The Board is competent to take this decision without remitting the case to the first instance.

5.1 The appellant criticised the examining division for arguing on the basis of independent method claim 3 instead of independent apparatus claim 1 (see point 2b of the statement setting out the grounds of appeal). However, the appellant did not argue that this led to a *substantial* procedural violation that could justify a remittal. Furthermore, the Board does not see a procedural violation at all.

Since the whole set of claims has to fulfil the requirements of the EPC, the application could be refused because claim 3 was considered not to be inventive. The Board therefore also does not see a reason for remitting the case to the department of first instance.

5.2 The Board also notes that, even if claim 1 does not comprise features of claim 3, which were considered to

be non-technical, that would not automatically invalidate the reasoning of the contested decision with regard to claim 1. When assessing inventive step only features contributing to the technical character can be considered (see T641/00). If claims 1 and 3 comprised the same technical features and claim 3 was held to be obvious, the conclusion of lack of inventive step would be the same for the subject-matter of claim 1.

In the present case, the Board emphasises that apparatus claim 1 even lacks some technical features of claim 3, e.g. the use of a network.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek W. Chandler

Decision electronically authenticated