

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAP AMERICA, INC.
Petitioner

v.

PI-NET INTERNATIONAL, INC.
Patent Owner

Case CBM2013-00013
Patent 8,037,158

**PETITIONER'S REPLY TO PATENT OWNER'S
CORRECTED RESPONSE TO PETITION**

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LIST OF EXHIBITS

SAP

<u>Exhibit No.</u>	<u>Document Description</u>
SAP 1001	U.S. Patent No. 8,0137,158 to Arunachalam (filed Oct. 30, 2007; issued Oct. 11, 2011) (“the ’158 patent”).
SAP 1002	Prosecution History of U.S. Patent No. 8,037,158
SAP 1003	Declaration of Dr. Marvin Sirbu (including Curriculum Vitae of Dr. Sirbu, attached as Appendix A; “Requirements for Internet Hosts—Communication Layers” by Braden as Appendix B; and, “Stanford Federal Credit Union Pioneers Online Financial Services” published by Business Wire as Appendix C).
SAP 1004	Lipis, A. H. et al., “Electronic Banking,” The Stock Market, 4 th Edition, John Wiley & Sons, New York, 1985, 227 pages.
SAP 1005	Stanford Federal Credit Union Pioneers Online Financial Services
SAP 1006	U.S. Patent No. 5,220,501 to Lawlor et al. (filed Mar. 15, 1984; issued Mar. 3, 1987).
SAP 1007	Computerworld, June 26, 1995

Currently Filed

SAP 1010	Declaration of Dr. Marvin Sirbu in Support of Petitioner’s Reply to Patent Owner’s Corrected Response to Petition.
SAP 1011	Patent Owner’s Corrected Response in proceeding IPR2013-00194 filed Feb. 5, 2014, Paper No. 34
SAP 1012	PI-Net v. JP Morgan Chase Joint Claim Construction Chart, Case 1:12-cv-00356-RGA

I. Introduction

The Board, in granting the instant covered business method review, found that Petitioner, SAP, has presented a compelling case for finding the challenged claims (claims 1-6 and 11) of the '158 patent unpatentable. In response to the Board's well-reasoned decision, Patent Owner ("PO") provides a lengthy, confusing response unsupported by expert testimony or extrinsic evidence and premised on improper claim constructions and erroneous interpretations of the applied prior art. PO furthermore fails to provide any support to refute a finding that claims 1-6 and 11 are non-statutory and indefinite.

II. Argument

A. PO's alternative constructions should not be adopted.

Recognizing the weakness in its position, PO premises its Response solely on overly narrow and unsupported constructions of eight terms: "Web application," "service network atop the World Wide Web," "Web user input device," "utilizing a routed transactional data structure that is both complete and non-deferred," "object routing," "individual networked objects," "virtual information store," and "POSvc application." The Board should reject PO's constructions because PO's constructions are inconsistent with the specification, import limitations into the claims, and introduce further ambiguity into the claims.

1. "Web Application"

PO urges the Board to reconsider its construction of this term and instead adopt PO's construction – “an application that is a Web client in a Web browser.” The Board should reject PO's construction because it is contradictory to the specification. Nowhere does the specification describe that “a Web client [can be] in a Web browser.” To the contrary, the specification states that “[w]eb browsers are software interfaces that run on Web clients.” (SAP 1001, '158 patent, 1:31-32.) And in a related proceeding, PO proposed a construction of this term that is broader than the construction presented in this proceeding. (*See* SAP 1012, p. 8.)

In its Response, PO merely argues without any support from the specification or any expert testimony that the Board's construction of this term is improper. PO relies on two extrinsic sources that do not support its position. First, PO quotes Wikipedia for the proposition that a “web application” is “any application that uses a web browser as a client.” (Response, Paper 33, p. 19.) Second, PO quotes an article that states that a “client” is an application into which a user enters information and that “the client runs in a web browser.” (Paper 33, p. 19.) From these two quotes, PO asserts that a web application is “an application that runs as a Web client in a Web browser.” (Paper 33, p. 20.) However, neither of these quotes supports a “web application” as being a client. To the contrary, the first quote defines a web application in relation to the particular type of client it serves. And the second quote merely states that instead of the entire web browser

serving as the client, the client “runs in a web browser.” PO’s citations to the specification and the prosecution history of the ’158. Patent also fail to define a “web application” and instead relate to a point-of-service (“POSvc”) application. (See Paper 33, pp. 20-21.) However, as already pointed out by the Board, claim 1 recites offering one or more Web applications as point-of-service applications and this suggests that “web application” encompasses more than point-of-service applications. (See Paper 15, pp. 13-14.) Finally, PO, without merit, criticizes the Board’s definition of “web application,” i.e., *a software program that can be accessed by an Internet user*, because this construction allegedly encompasses an Internet-accessible database. (Paper 33, p. 23.) But PO has not provided any evidence that a “database” is a *software application*, and thus encompassed by the Board’s construction. Applications that manage “Internet-accessible databases” are software applications, but the database itself is a collection of data. (SAP 1010, Sirbu Dec., ¶ 23.)

2. “service network atop the World Wide Web”

PO asks the Board to further narrow its construction by requiring (1) that the network runs “within the application layer of the OSI model” and (2) that the provided services “are provided over the World Wide Web.” PO’s proposed construction improperly imports limitations into the claims. Nothing in the ’158 patent requires the “service network” to be limited to “run[] within the application

layer of the OSI model.” (SAP 1010, ¶ 24.) Further, the addition of “on which the services are provided *over the World Wide Web*” is contrary to the specification of the ’158 patent, which mentions “service network” three times: (1) “a service network running on top of a facilities network, namely the Internet, the Web or email networks.” (’158 patent, 5:59-61); (2) “Five components interact to provide this service network functionality, namely an exchange..” (*Id.* at 6:1-4); and (3) “Exchange 501 creates and allows for the management (or distributed control) of a service network, operating within the boundaries of an IP-based facilities network.” (*Id.* at 6:30-33.)

3. “*Web user input device*”

PO asks the Board to modify its construction to mean “the same input device as that coupled to the computer system *on which* the Web page is displayed.” (Paper 33, pp. 27.) However, PO’s construction is improperly limiting in a manner unsupported by the specification or the claim language. PO’s proposed construction attempts to limit the input device to a particular display, i.e., the one on which the web page is displayed. However, the claim and specification does not limit the input device in such a manner. (SAP 1010, ¶ 26.)

4. “*utilizing a routed transactional data structure that is both complete and non-deferred*”

PO asks the Board to modify its construction to mean “using a type of transaction object that is routed and which contains the information necessary for a

complete, real-time transaction.” (Paper 33, pp. 29-36.) PO proposes that each of the following terms should be construed separately: (1) routed, (2) data structure, (3) complete, and (4) non-deferred. (*See id.*) PO’s proposed modified construction is unsupported by the claims or the specification, and the Board’s construction should stand.

Regarding the term “routed,” PO alleges that “the claim phrase speaks of routing ‘a data structure’ not a user.” (Paper 33, p. 30.) However, claim 1 explicitly recites “*utilizing* a routed transactional data structure” and does not recite the actual routing of the data structure. (SAP 1001, 10:11-12; SAP 1010, ¶ 28.) In fact, PO’s arguments relating to routing a data structure is evidence that only through amending the claims can the claim mean what the PO asserts. A person of ordinary skill in the art (“POSA”), would have understood that the routed data structure is utilized to facilitate the process of transferring funds from a checking account to a savings account. (*Id.*) The access to the accounts is provided by the point-of-service application selected by accepting a signal from the web user input device, and any routing that takes place, is in response to subsequent signals from the web user input device. (*Id.*)

PO alleges that the term “data structure” should mean “a type of object” (*See* Paper 33, p. 32.) However, claim 1 makes no reference to an object and does not specify any form of data structure. PO bases its position on col. 8, lines 27-29 of

the '158 patent. (*See* Paper 33, p. 32.) However, this excerpt merely states that each type of object may have a data structure. There is no support for the data structure being the actual object. (SAP 1010, ¶¶ 29-30.) Further, the additional excerpts relied upon by PO only support the notion that an object may be a type of transactional data structure. (*See* Paper 33, pp. 32-33.) Additionally, the Wikipedia definition cited by PO clearly states that records are among the simplest data structures, indicating that there are multiple types of data structures. (*See* Paper 33, p. 33.)

PO argues that “complete” should mean “contains the information necessary for the transaction”, and “non-deferred” should mean “the opposite of deferred” or “real-time.” (Paper 33, p. 35.) However, there is simply no support within the '158 patent that limits these terms to the PO's proposed definitions. (SAP 1010, ¶ 31.)

5. *“object routing”*

PO asks the Board to further narrow its construction by requiring “the routing of individual networked objects from a selected transactional application on a Web page to the processing provided by the service provider.” (Paper 33, pp. 38-40.) PO argues that “the plain language of the claim refers to “object routing” not “user routing” (Paper 33, p. 38.) PO's position is incorrect.

Placing the word “object” before “routing” supports the plain language meaning of using objects to route, per the Board's construction. PO could have

written the claim using the term “routing objects” but chose not do so. Furthermore, PO argues that “object routing” refers to the routing of objects from a “selected transactional application on a Web page to the processing provided by the service provider.” (Paper 33, pp. 38–39.) PO cites to the following portions of the ’158 Patent: 7:1–14, 2:50–52, and 2:42–48, but none of these cites discusses routing from a selected transactional application on a **Web page**. (See Paper 33, p. 40.) Instead, these portions describe object routing that occurs using the **World Wide Web**. (SAP 1010, ¶ 32.)

6. “individual networked objects”

PO introduces a construction for “individual networked objects” to mean “the information entries and attributes in a DOLSIB.” (Paper 33, pp. 41-42.) However, the ’158 Patent makes clear that the use of a DOLSIB in routing objects is merely one of a number of different embodiments, reciting, “**One embodiment** of the present invention utilizes TMP and distributed on-line service information bases (DOLSIBs) to perform object routing. **Alternatively . . .**” (SAP 1001, 7:61–65; SAP 1010, ¶ 33, emphasis added.) In addition, PO alleges that the term is explicitly defined at col, 8, lines 1-3 of the ’158 patent, which states “the networked object identity identifies the information entries and attributes in the DOLSIB as individual networked objects.” However, this portion of the ’158 Patent describes a “networked object identity,” not “individual networked objects.”

7. “*virtual information store*”

PO asks the Board to further narrow its construction by requiring that the information store be “transient” and “temporarily created.” (Paper 33, pp. 42-44.) While the specification states that a virtual information store is created (*see* SAP 1001, 2:52-54), there is no support for the creation of the virtual information store being *transient and temporary* (SAP 1010, ¶ 35.) Additionally, PO’s argument that the virtual information store is not “real” is incorrect. (*See* Paper 33, p. 43.) A POSA, would have clearly understood that the virtual information store that is recited in claim 6 is indeed “real,” since it is used when transferring funds. (SAP 1010, ¶ 35.)

8. “*POSvc application*”

PO refers the Board to an 8+ page argument in its Response filed in case no. IPR2013-00194 (“194 Response”). This amounts to an improper attempt to incorporate arguments by reference to bypass the page limits for a response. 37 C.F.R. § 42.6(a)(3). Thus, the Board should limit PO’s arguments for this term to what was presented in the Response.

Unclear as to what this term, a term “coined by the inventor,” actually means in the context of the ‘158 patent, PO presents two alternate constructions. Both PO’s constructions should be rejected. The first construction improperly imports limitations from the specification into the claims and was rejected by the Board as

unsupported in the Board’s Institution Decision. (SAP 1010, ¶¶ 36-38.) The second construction similarly seeks to incorporate the “Web” into the construction of POSvc application arguing that “it is clear from the claim as a whole, and from the specification, . . . that the user of the POSvc application is a **Web** user.” (Paper No. 36, p. 47, emphasis in original.) Because nothing in the ‘158 patent requires the incorporation of the “Web” in the construction of “*POSvc application*” (see SAP 1010, ¶ 38), PO’s second construction should also be rejected.

B. Claims 1-3 and 11 are unpatentable under 35 U.S.C. § 101.

PO alleges that claims 1-3 and 11 are not abstract. The basis of PO’s allegations are flawed claim construction arguments and an erroneous allegation that the Board ignored steps of claim 1 that play a significant part in permitting the claimed method to be performed.

1. Claims 1-3 and 11 are abstract

PO alleges that the abstract idea of claim 1 (i.e. performing fund transfers from a checking account to a savings account) is patentable because of the claim term “routed transactional data structure.” (See Paper 33, pp. 13-14.) However, as discussed above in Section II.D, PO’s proposed construction for “routed transactional data structure” is flawed, because claim 1 never requires the actual routing of the data structure. Therefore, the Board’s construction of the claim term should be maintained. As determined by the Board, the proper construction of

“utilizing a routed data structure that is both complete and non-deferred” means “using a data structure that *facilitates* switching a user who selects a transactional application to a service provider program that provides immediate processing.”(Paper 15, p. 16, emphasis added.) It is clear under the Board’s construction that claim 1 does not require the *routing* of transactional data structures, as alleged by PO and thus claim 1 recites an activity that is purely financial in nature and abstract.

2. *PI-NET’s contention that SAP and the Board ignored steps that “play a significant part in permitting the claimed method to be performed” is erroneous.*

Claim 1 is also not directed to a technological invention, as it does not recite a technical solution to a technical problem. Legislative history counsels towards a narrow definition of “technical” problems and solutions. 77 Fed. Reg. 157, p. 48735-48736 or 48753. Simply reciting technological features or combining known technology in a new way for processing is not sufficient.

PO alleges that “claim 1 includes important recitations which the Board ignored. (*See* Paper 33, pp. 15-16.) However, the Board did not err nor remove any concrete limitations from claim 1, as alleged by PO. Consistent with the Board’s ruling in the Decision, claim 1 recites an abstract concept without limiting the transactional data structure. (Paper 15, p. 20.) As noted by the Board, “in order for the addition of a machine to impose a meaningful limit on the scope of a [method]

claim, it must play a significant part in permitting the claimed method to be performed, rather than function solely as an obvious mechanism for permitting a solution to be achieved more quickly.” (Paper 15, p. 20.) Here, using the Board’s constructions, it is clear that claim 1 does not include any limitations which remove it from the abstract realm. Claim 1 covers an abstract idea with scant, indirect references to well-known components, avoids specifying any particular technological implementation, and is nonetheless directly applicable to financial activity. In fact the claims are directed to solving financial problems not solving technological problems. The only references in the challenged claims to anything remotely technological are indirect references to well-known routine technology, namely, a web page, a computer system, input device, network, and data structure. Indeed, there is nothing technological at all in claim 1.

C. Under the proper constructions, the challenged claims of the ’158 patent are unpatentable.

PO’s arguments over Lawlor in view of Computerworld and SFCU in view of Electronic Banking are premised solely on its improper claim constructions. When considered under the proper constructions, claims 1-3 and 11 are obvious over Lawlor and Computerworld, as well as over SFCU and Electronic Banking.

- 1. Lawlor in view of Computerworld teaches “utilizing a routed transactional data structure that is both complete and non-deferred” and a “web application.”***

PO does not respond to the Board's conclusion that, under the Board's construction, Lawlor in view of Computerworld teaches "utilizing a routed transactional data structure that is both complete and non-deferred." As discussed above, PO's proposed construction should not be adopted. Lawlor discloses that once the user has input the desired source and destination accounts "a transfer confirmation message is displayed on the terminal screen after entry of the necessary information indicating that the transfer has been accepted by the central processor." (SAP 1006, Lawlor, 34:60-63.) Lawlor further discloses a "routing module 80C" which "permits efficient routing of transactions to the appropriate module for servicing." (*Id.* at 20:27-28.) Thus, Lawlor's routing module 80C is a structure that facilitates switching a user who selects a transactional application to a service provider program that provides immediate processing.

PO also does not respond to the Board's conclusion that, under the Board's construction, Lawlor in view of Computerworld teaches a "web application." As discussed above, PO's proposed construction should not be adopted. Computerworld teaches accessing of banking over the Internet using Netscape Navigator, which is analogous to a software program that can be accessed by an Internet user. (*See* SAP 1007, Computerworld, p. 1.) Lawlor discloses providing a POSvc application (i.e., the transfer funds option) as a selection within a page. As discussed above a POSvc application is one example of a web application. (*See*

SAP 1006, 32:67-33:2; 41:35-40; SAP 1010, ¶ 41.) Computerworld also describes that similar services were performed using Web pages, such as the Security First Network Bank Web page. (SAP 1007, p. 1; SAP 1010, ¶ 41.)

PO further argues, without any expert testimony, that Lawlor and Computerworld would not be obvious to combine. (*See* Paper 33, pp. 57, 63-65.) SAP's expert, Dr. Sirbu, confirms that nothing within the teachings of Lawlor or Computerworld would preclude a POSA from combining the teachings of the references when using logic, judgment, and common sense. (SAP 1010, ¶ 42.)

It is well settled that “the references themselves need not provide a “specific hint or suggestion” of the alteration needed to arrive at the claimed invention; the analysis “may include recourse to logic, judgment, and common sense available to a person of ordinary skill that do not necessarily require explication in any reference or expert opinion.” *Perfect Web Techs. v. Info USA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009). In particular, the Court emphasizes that “where all of the limitations of the patent were present in the prior art references, and the invention was addressed to a ‘known problem,’ ‘ KSR ... compels [a determination of] obviousness.’” *Wyers v. Master Lock Co.*, 616 F.3d at 1240 (citing *Ball Aerosol & Specialty Container, Inc. v. Ltd. Brands, Inc.*, 555 F.3d 984, 993 (Fed.Cir.2009)). Here, all of the limitations of claim 1 are present in the prior references of Lawlor

in view of Computerworld, and the '158 patent addressed the known problem of transferring funds between accounts.

2. *SFCU in view of Electronic Banking teaches “utilizing a routed transactional data structure that is both complete and non-deferred” and a “web application.”*

PO does not respond to the Board’s conclusion that, under the Board’s construction, SFCU in view of Electronic Banking teaches “utilizing a routed transactional data structure that is both complete and non-deferred.” As discussed above, PO’s proposed construction should not be adopted. Electronic Banking teaches “utilizing a routed transactional data structure that is complete and non-deferred.” Electronic Banking states, “when the customer indicates to the network controller that he or she wishes to engage in home banking (by pushing the button on the keypad...the network controller sets up a direct connection between the financial switch (FS) bank and the customer.” (*Id.* at p. 140.) Additionally, Electronic Banking discloses that when a transaction is performed, the Fed Wire network that manages the transfer of funds, immediately affects an institution’s available funds. (*See Id.* at 174.)

PO also does not respond to the Board’s conclusion that, under the Board’s construction, SFCU in view of Electronic Banking teaches a “web application.” As discussed above, PO’s proposed construction should not be adopted. Electronic Banking states that “when a customer initially accesses the system...the customer

may access the many different services that the network controller offers by selecting from among categories listed on an index menu. One of these categories is the bank's home banking service..." (SAP 1004, Electronic Banking, p. 140.) Electronic Banking's home banking application is the recited "web application." (SAP 1010, ¶¶ 44-45.)

D. Claims 1-6 and 11 are indefinite.

As discussed above, there is no support for PO's construction of the claim term "routed transactional data structure" and the construction is overly narrow. Since the term "routed transactional data structure" is not a term used in the art and the specification does not provide a definition, a POSA could not meaningfully determine the precise scope of the claim term. (SAP 1010, ¶ 46.)

III. Conclusion

For the reasons in the Petition and above, claims 1-6 and 11 of the '158 patent should be canceled.

Respectfully submitted,

Date: April 20, 2014

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CERTIFICATION OF SERVICE (37 C.F.R. §§ 42.6(e))

The undersigned hereby certifies that the above-captioned “PETITIONER’S
REPLY TO PATENT OWNER’S CORRECTED RESPONSE TO PETITION”

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