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Mail Stop Patent Board

Director of the United States Patent and Trademark Office

P.O. Box. 1450

Alexandria, VA 22313-1450

Attn: Lead Judge Michael Tierney, Covered Business Methods Patent Review, Proposed Definition for Technological Invention

Re: Changes to Implement Transitional Program for Covered Business Method Patents, RIN 0651-AC73, 77 Fed. Reg. 7080 (Feb. 10, 2012)

Re: Transitional Program for Covered Business Method Patents, Definition of Technological Invention, RIN 0651-AC75, 77 Fed. Reg. 7095 (Feb. 10, 2012)

Dear Judge Tierney:

While our two companies are competitors in the financial service industry and have been engaged in contentious patent litigation against each other, we both agree that the proposed regulations for the business method patent review program need to be clarified and changed. As technology companies in the financial service industry, we both have a desire to encourage innovation in the financial service industry and believe that the proposed regulations – due to the uncertainty of the scope of the covered business method patent review – have the potential to actually harm innovation in this rapidly changing industry.

In contrast to many of the companies submitting comments on these proposed regulations, our companies have invested significantly in researching and developing financial service technology and use the patent system to protect our investments in our innovations. Both companies take great pride in developing high-quality, high-value patent portfolios. Cantor Fitzgerald and Trading Technologies each have over 200 issued patents in the United States and over 200 pending patent applications.

I. Additional Examples

Regardless of the final definitions of “covered business method patent” and “technological invention,” we strongly believe that the PTO needs to provide additional examples that illustrate the scope of the definition. The USPTO did provide an example: that a patent for a method of

hedging risk in commodities trading would be subject to review under the program, while a novel and nonobvious machine for hedging risk would be a technological invention that is not covered. See, e.g., *Practice Guide for Proposed Trial Rules*, 77 Fed. Reg. 6868, 6873 (February 9, 2012). While this is a great start, additional examples should be provided.

For the convenience of the PTO, two examples supported in the Congressional Record are:

1. A patent for a trading strategy (e.g., buy low, sell high) would be subject to review under the program, while an electronic trading tool, such as graphical user interface or network, which allows an electronic trader to place a trade order with an electronic exchange, would not be subject to review.

See, e.g., 157 Cong. Rec. S5428 (September 8, 2011). Specifically, see colloquy between Sen. Schumer and Sen. Durbin discussing: “[S]oftware tools and graphical user interfaces that have been widely commercialized and used within the electronic trading industry to implement trading and asset allocation strategies”). Senator Durbin (IL), 157 Cong. Rec. S5428 (September 8, 2011)

2. A patent that is directed at machinery to count, sort, and authenticate currency and paper instruments would not be subject to review.

See, e.g., 157 Cong. Rec. S5428 (September 8, 2011). Specifically, see colloquy between Sen. Schumer and Sen. Durbin discussing: “machinery to count, sort, and authenticate currency and paper instruments are technological inventions”). 157 Cong. Rec. S5428 (September 8, 2011).

II. Technological Invention

The definition for covered business method patents, as provided in § 18(d)(1) of the Leahy-Smith America Invents Act, excludes “technological inventions” from review. Congress then provided the PTO with the task of defining “technological invention.” The PTO suggested the following definition of “technological invention” in proposed § 42.301(b): the claimed subject matter as a whole (1) recites a technological feature that is novel and unobvious over the prior art; and (2) solves a technical problem using a technical solution.

a. The USPTO’s Proposed Definition of Technological Invention is Deficient

While we recognize that defining the term “technological” is not easy or straight-forward, we believe that there are serious deficiencies in the PTO’s proposed definition that cause confusion and uncertainty. We believe the proposed definition is deficient for the following reasons:

First, the definition is circular. “Technological” and “technical” are used to define “technological.” The circular nature of this definition is confusing and causes ambiguity. Unfortunately, the proposed definition provides very little clarity on what is covered and what is not covered.

Second, the definition includes a “novel and nonobvious *feature*.” First, in the U.S., patent questions do not turn on a single “feature” in isolation; all patent questions turn on the claim taken as a whole. Second, a question of subject matter jurisdiction during the petition stage should not turn on the very novelty or non-obviousness question that the review is intended to resolve. A determination of novelty and non-obviousness should be saved for when the patent is deemed to be a covered business method.

Finally, and most troubling, the PTO’s proposal is to decide “case by case,” but there is no meaningful guidance on how the proposed definition will be applied. No factors or deeper inquiry are discussed in the Notice of Proposed Rulemaking. The examples in the Notice of Proposed Rulemaking are all drawn from the extremes of the spectrum, and give no insight into how “case by case” decisions will be made in meaningful cases. Since the scope of “technical problem” and “technical solution” are both undefined, both patent owners and petitioners (as well as the Board members that have to make the decision) are left in a state of confusion until precedent is set.

b. The Definition Should Instead Focus on Defining “Technology”

We suggest the following test for whether a claim includes a technological invention:

§ 42.301(b): Technological invention. In determining whether a patent is for a technological invention solely for purposes of the Transitional Program for Covered Business Methods (section 42.301(a)), the following will be considered:

(1) A claim will be considered a technological invention when the claimed subject matter as a whole covers more than an abstract business concept or implementation thereof where the implementation is secondary to the abstract business concept.

(2) When determining whether a claim is more than an abstract business concept or non-secondary implementation thereof under § 42.301(b)(2), it should be determined that the claim satisfies at least one of the following criteria:

(i) whether the claimed subject matter as a whole recites a technical feature;

(ii) whether the claimed subject matter as a whole addresses a technical problem; or

(iii) whether the claimed subject matter as a whole involves a technical solution.

(3) When considering § 42.301(b)(2)(i)-(iii), the term “technical” includes the application of science, mathematics, and/or engineering. The term “engineering” shall include computer engineering, computer science, software engineering, and electronic engineering.

(4) Pre- or Post-Solution Activity. When considering § 42.301(b)(2)(i)-(iii), the technical feature, problem, or solution must represent more than insignificant pre- or post-solution activity.

We believe that this definition is more precise, and more accurately describes the concept of “technological invention” intended by Congress.

i. Abstract Business Concept or Implementation Thereof

Congress’ understanding of what is a “business method patent” is different and narrower than how the PTO has used that term. In particular, Congress was focused on *patents that cover abstract business concepts and implementations that are no more than straightforward coding of the abstract business concept into computer code (i.e., insignificant post solution activity)*. This understanding is clear to us based on many visits with Congressional Members and staff; and more importantly, it is based on the Congressional Record. For example:

1. MR. KYL. As the proviso at the end of the definition makes clear, business methods do not include “technological inventions.” In other words, the definition applies only to abstract business concepts and their implementation, whether in computers or otherwise, but does not apply to inventions relating to computer operations for other uses or the application of the natural sciences or engineering. Senator Kyl (AZ) 157 Cong. Rec. S5431 (September 8, 2011) (emphasis added).

2. MR. KYL. As the proviso at the end of the definition makes clear, business methods do not include “technological inventions.” In other words, the definition applies only to abstract business concepts and their implementation, whether in computers or otherwise, but does not apply to inventions relating to computer operations for other uses or the application of the natural sciences or engineering. Senator Kyl (AZ) 157 Cong. Rec. S1379 (March 8, 2011) p. (emphasis added).
3. MR. PRYOR. As I understand it, Section 18 is intended to enable the PTO to weed out improperly issued patents for abstract methods of doing business. Senator Pryor (AR) 157 Cong. Rec. S5428 (September 8, 2011) p. .
4. MR. KYL. Finally, let me close by commenting on section 18 of the bill. Some legitimate interests have expressed concern that business-method patents will be subject to challenge in this proceeding. I have been asked to, and am happy to, reiterate that technological inventions are excluded from the scope of the program, and that these technological inventions include inventions in the natural sciences, engineering, and computer operations—and that inventions in computer operations obviously include software inventions. Senator Kyl (AZ) 157 Cong. Rec. S5431 (September 8, 2011) (emphasis added).
5. MR. KIRK. However, I vote for this legislation with the understanding that Section 18, which establishes a review process for business-method patents, is not too broadly interpreted to cover patents on tangible products that claim novel and nonobvious software tools used to execute business methods. H.R. 1249 seeks to strengthen our patent system in order to incentivize and protect our inventors so that Americans can grow our economy and bolster our global competitiveness. Thus, it would defy the purpose of this bill if its authority were used to threaten the viable patents held by companies that employ hundreds of Americans by commercializing software products they develop and engineer. Senator Kirk (IL) 157 Cong. Rec. S5433 (September 8, 2011).

A patent merely directed to a trading strategy (e.g., buy low, sell high) is an example of the type of patent that should be subject to review. On the other hand, electronic trading tools (e.g., graphical user interfaces, networks, communication protocols, etc.) that allow a trader to implement the trading strategy are not supposed to be subject to Section 18 review.

A patent merely directed to a method of processing a check is another example of a type of business method subject to Section 18 review. In contrast, check processing tools (e.g., pixel scanners) that might be used to process the check are not intended to be subject to Section 18

review. As a result, a patent that claims a method for processing a check that does not *require* use of technology – while it may be patentable – would be considered a business method patent that is not a “technological invention,” and thus, potentially subject to review. However, a claim that recites technology that allows a financial institution to implement the method for processing a check is a “technological invention” and thus is not subject to review.

ii. “Technical”

With respect to proposed § 42.301(b)(2)(i)-(iii), we believe that satisfying *any* of these prongs indicates that an invention is “technological” and thus not an abstract business concept or non-secondary implementation thereof. This test still satisfies the Congressional Record cited in the proposed regulations. Namely, it is still centered on technical feature, technical problem, and technical solution.

Under our proposed definition, there is no longer any test of patentability (e.g., § 101, § 102, or § 103) in the test for subject matter jurisdiction for the Business Methods review. The PTO mentioned during the roadshow that they wanted to avoid a § 101 type review during petition stage. Likewise, the PTO should avoid a determination of § 102, or § 103. Our proposal avoids this type of review all together.

The definition is no longer circular. While the term “technical” is still used to define “technological,” proposed § 42.301(b)(2) provides a definition of “technical” that is clearly within the intent of Congress. For instance, Senator Kyl (AZ) stated:

As the proviso at the end of the definition makes clear, business methods do not include “technological inventions.” In other words, the definition applies only to abstract business concepts and their implementation, whether in computers or otherwise, but does not apply to inventions relating to computer operations for other uses or the application of the natural sciences or engineering.

Senator Kyl (AZ) 157 Cong. Rec. S5431 (September 8, 2011) (emphasis added). We believe that the definition of “technical” set forth in proposed § 42.301(b)(1)(iii) – including the software engineering clarification – are supported by the Congressional Record. Senator Kyl stated: “an actual software invention is a technological invention, and is not subject to review under section 18 ... I have been asked to, and am happy to, reiterate that technological inventions are excluded from the scope of the program, and that these technological inventions include inventions in the natural sciences, engineering, and computer operations—and that inventions in computer operations obviously include software inventions.” See 157 Cong. Rec. S5431 (September 8, 2011).

iii. Pre- or Post-Solution Activity

The pre- or post-solution activity clarification is in accordance with the Congressional intent to capture patents that merely automate a known business methods. For instance, claiming a trading strategy (e.g., buy low, sell high) with the additional claim element of “viewing a computing device” could be considered insignificant post-solution activity; and thus, be subject to review.

c. Additional Comments/Safeguards that should be Addressed

As stated above, we do not support a review of novelty and non-obviousness in evaluation of “technological invention” during petition. However, if the PTO decides to implement a review of novelty and non-obviousness during this stage, it should be limited to the patents cited during the initial prosecution (i.e., the prior art listed on the face of the patent). For example, under the PTO’s proposed definition, the PTO should determine whether a technological feature was the reason for patentability in the initial prosecution. The PTO should NOT consider references cited for the first time in the petition. This will prevent “fishing” expeditions by the petitioner attempting to obtain a statement on the record for future litigation purposes. Again, a patent should be presumed valid.

Respectfully Submitted,

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