USPTO Guidance Not Helpful For Method Patent Applicants

By Wen Xie (January 27, 2020, 2:12 PM EST)

2019 was a watershed year for patent practice before the U.S. Patent and Trademark Office, as the agency rolled out the Revised Patent Subject Matter Eligibility Guidance[1] in January followed by its supplementary update[2] in October.

The guidelines are widely regarded as attempts by the USPTO to provide clarification on the confusion surrounding Section 101 caused by the Alice[3] and Mayo[4] framework, raising the hopes of potential applicants who are looking to circumvent the abstract idea pitfall by making a showing of practical application under step 2A of the Alice/Mayo test.

However, recent cases from the Patent Trial and Appeal Board implementing the guidelines have shown that the practical application test might not be the avenue that applicants have hoped for.

When the October update established the need of the examining corps to consider improvements during prong two of step 2A, the office stated that “the claimed invention may integrate the judicial exception into a practical application by demonstrating that it improves the relevant existing technology although it may not be an improvement over well-understood, routine, conventional activity” (so-called WRC).[5]

In other words, the guidelines have enabled applicants to show practical application of a judicial exception under prong two of step 2A by showing of an improvement over the relevant existing technology, despite the improvement's not being a proving over WRC, thereby establishing a safe haven for applicants over the more strenuous analysis of step 2B, which calls for establishing something more than what is WRC. The analysis of the latter step has caused many applicants to succumb under the weight of the abstract idea guise.

The WRC pitfall has proven especially damning for software applicants claiming computer-implemented methods, more specifically, with respect to business methods. One of the interesting aspects of a business method patent/patent application is that no applicant comes out with, “Hello, this is a business method.”

So, what is a business method? The best statutory definition would be that of a covered business
method, established under the Leahy-Smith American Invents Act to mean, “a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.”[6]

Please note that business method patents in general are not restricted to those implemented in financial products and services. However, for the purposes of this article, we will use the definition that is best provided for us by Congress and examine method claims for performing operations in the financial sector.

As we have seen with notable U.S. Court of Appeals for the Federal Circuit decisions such as Chamberlain Group Inc. v. Techtronic Industries Co.[7] and American Axle & Manufacturing. v. Neapco Holdings LLC,[8] the USPTO’s guidelines are clearly not binding outside of the agency. The guidelines are, however, authority over the examining corps and the PTAB. So how has the practical application prong of step 2A played out at the PTAB since the guidelines have been rolled out? Has it really proven to be a safe haven for the WRC test?

In Ex Parte Royyuru, First Data Corp. claimed a method of implementing enrollment authentication.[9] Regarding the purported improvement, the board found that:

The claimed invention is ostensibly intended to address this issue [of the need for authentication methods in e-commerce] by providing a technique for authenticating an enrollment request by gathering credentials from the consumer ... without requiring entry of the PIN on a tamper-resistant PIN entry device.[10]

Yet the board found:

no indication in the Specification that the operations recited in claim 1 require any specialized computer hardware or other inventive computer components, i.e., a particular machine, invoke any assertedly inventive programming, or that the claimed invention is implemented using other than generic computer components to perform generic computer functions.[11]

Thus, there was no practical application, and, of course, there was not a showing of something more than WRC in step 2B.

In Ex Parte Howe, MasterCard International Inc. claimed a method of deploying chip-card payment cards to payment cardholders based on their propensity to travel to locations.[12] The board found that:

computer-related recitations such as ‘via a network interface,’ and ‘with a processor’ (and a ‘database,’ although there is nothing technical per se about the recitation of a database) constitute routine uses of those technologies to automate the underlying business method. Thus, they do not constitute an improvement to ‘the functioning of the computer itself’ or ‘any other technology or technical field.’[13]

The problem is not that these PTAB decisions have misapplied the guidelines. Rather, these decisions have applied the guidelines correctly, which is all the more disturbing.

The October update, which goes into depth about the need to assess improvements to the technology in prong two, still made it clear that:
the Supreme Court determined that the claim limitations 'data processing system,' ‘communications controller,’ and ‘data storage unit’ were generic computer components that amounted to mere instructions to implement the abstract idea on a computer. Such limitations would not be sufficient to demonstrate integration of a judicial exception into a practical application, and accordingly the analysis of the claims must proceed to Step 2B.[14]

Therefore, the October update made it clear that improvements must concern a specialized machine or computer. Improvements to a technology that are carried out via a generic computer are not considered improvements sufficient for a showing of practical application.

But here is the problem — of course the claims in Ex Parte Royyuru and Ex Parte Howe fail to recite specific machines or specialized computers. Of course they recite methods that are to be implemented in generic computers, as they are claims to a method for performing data processing or other operations used in the practice, administration, or management of a financial product or service.

The claims in Ex Parte Royyuru and Ex Parte Howe are exactly the type of claims that Congress had in mind when establishing covered business method review under the AIA. But the guidelines and the current practice at the USPTO have made it such that business method patents are effectively impossible to acquire. It is hard to believe that this could be Congress’ intent.

If Congress did not want business methods to be patentable, then why set up a specialized review process for the validity of CBM patents? Admittedly, CBM review is a favorable proceeding for patent challengers. But if Congress intended for business methods directed to practices within the financial sector to not obtain patent protection whatsoever, why did they not just simply say so? Why even bother setting up a separate review practice for these inventions at all?

Interestingly, following the January guidance but prior to the October update, the USPTO designated an informative decision in Ex Parte Smith, which found a method of trading derivatives to be integrated into a practical application “by reciting a specific timing mechanism in which the execution of a matching order is delayed for a specific period of time,” which provided a specific technological improvement over prior derivatives trading systems.[15]

The method in Smith was not implemented to any special computer. Even the panel of Ex Parte Smith admitted that, the computer-related limitations “are described at a high level in the Specification without any meaningful detail about their structure or configuration,” such that the computer-related limitations were not sufficient to integrate the judicial exception into a practical application.[16]

Ex Parte Smith, then, seems to directly conflict with the October update, which made clear that a purported improvement should be to the functioning of a computer or specific technology and that reciting methods to be implemented on generic computer components were insufficient under the practical application analysis. So should Ex Parte Smith be undesignated?

Or perhaps the October update engendered unforeseen results that require the office to revisit the issue of practical application. The USPTO’s policy currently seems to be contradicting itself on the issue of computer-implemented method claims. If the practical application test is really meant to be an avenue to overcome the WRC pitfall that has ensnared so many software applicants, then Ex Parte Smith should be designated as precedential, and the October update should be revised to reflect this policy.

Otherwise, the guidelines are effectively neutral on the patentability of computer-implemented claims
against the Alice and Mayo framework, as the challenge of showing improvements to a machine or functioning of a machine is a bar that is practically impossible for computer method claims to overcome.

Wen Xie is an associate at Global IP Counselors LLP.

The opinions expressed are those of the author(s) and do not necessarily reflect the views of the firm, its clients, or Portfolio Media Inc., or any of its or their respective affiliates. This article is for general information purposes and is not intended to be and should not be taken as legal advice.


[6] AIA § 18(d)(1); see also 37 C.F.R. § 42.301(a).


[9] Claim 1 recited: A method of implementing enrollment authentication, the method comprising: [(a)] receiving, by a processing system from a customer, a partial primary account number (PAN) and an identifier of an issuing financial institution of the partial PAN; [(b)] based on transaction history related to the partial PAN, presenting, from the processing system, a plurality of challenge questions to the customer; [(c)] receiving, by the processing system from the customer, answers to the plurality of challenge questions; [(d)] based on the partial PAN, the identifier of the issuing financial institution, and the answers to the plurality of challenge questions, resolving, by the processing system, a complete PAN; [(e)] prompting the customer to select a mutual trust phrase; [(f)] receiving, by the processing system, the selected mutual trust phrase; [(g)] placing a call from an interactive voice response (IVR) system to the customer; [(h)] playing back, by the IVR system to the customer, the selected mutual trust phrase; [(i)] receiving, from a telephone, the customer's personal identification number (PIN) associated with the complete PAN; and [(j)] using, by the processing system, the complete PAN and PIN combination to authenticate the customer. Ex Parte VIJAY ROYYURU, Appeal 2017-005154 (PTAB Nov. 11, 2019) at 2.

[10] Id. at 6.


[12] Claim 1 recited method comprising: receiving, via a network interface, payment card transaction data from a merchant bank as part of a non-real time clearing process, the transaction data including a cardholder identifier associated with a customer, addenda for the transaction data, and a vendor; extracting travel information from the addenda with a processor, the travel information including an
anticipated location; matching the anticipated location, with the processor, against a database of predetermined locations where CHIP-enabled cards are used; and transmitting to an issuer a message via the network interface, the message informing the issuer of impending travel by the customer when the anticipated location matches against the database of locations where CHIP-enabled cards are used. Ex Parte JUSTIN X. HOWE, Appeal 2018-002955 (PTAB May 31, 2019) at 2.

[13] Id. at 8.


[15] Specifically, the Board found the following limitations to integrate the recited judicial exception of derivative trading into a practical application (1) delaying automatic execution of the new quote and the order, and starting a timer, (2) while delaying automatic execution of the order, and before expiration of the timer, receiving a second matching quote wherein the second quote matches the respective price of the public customer order, and (3) allocating the order between the first and second in-crowd market participants at the electronic trade engine, wherein the order is not executed until expiration of the timer. Ex Parte Eileen C. Smith, Appeal 2018-000064 (PTAB January 31, 2019) at pages 8-9.

[16] Id.