

Commissioner's Decision #1438  
Décision du Commissaire n° 1438

TOPIC: O-00 Obviousness

SUJET: O-00 Évidence

Application No: 2,541,215

Demande n°: 2 541 215



IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,541,215, having been rejected under subsection 30(3) of the *Patent Rules* (SOR/96-423), has consequently been reviewed in accordance with paragraph 30(6)(c) of the *Patent Rules*. The recommendation of the Patent Appeal Board and the decision of the Commissioner are to allow the application.

Agent for the Applicant

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## **INTRODUCTION**

- [1] This recommendation deals with a review of the rejection under subsection 30(3) of the *Patent Rules* of patent application number 2,541,215 entitled “An Aggregated Trading System”. The Applicant is Trading Technologies International, Inc.
- [2] The application relates to a computer-based system for hosting a collection of electronic mercantile exchanges. It was rejected by the Examiner on the ground of obviousness under section 28.3 of the *Patent Act*. A review of the rejected application has therefore been conducted by the Patent Appeal Board (“the Board”) pursuant to paragraph 30(6)(c) of the *Patent Rules*.
- [3] For the reasons that follow, we recommend that the application be allowed.

## **PROCEDURAL HISTORY**

- [4] The application bears a priority date of November 6, 2003 and was filed in Canada on November 5, 2004. It was published on May 26, 2005. Examination culminated with the issuance of a Final Action (“FA”) dated June 11, 2015, in which the application was rejected on the ground of obviousness. In its response to the FA (“R-FA”) dated December 10, 2015, the Applicant argued that the subject-matter of the claims would not have been obvious to the person skilled in the art at the relevant date of November 6, 2003. Certain claim amendments were also proposed.
- [5] The application was forwarded to the Board on January 25, 2016 along with a Summary of Reasons (“SOR”) explaining why the Examiner maintained that the claimed invention would have been obvious. The SOR was forwarded to the Applicant on February 2, 2016, to which the Applicant replied with further submissions (“R-SOR”) on February 28, 2017.
- [6] The present panel was then formed to review the application pursuant to paragraph 30(6)(c) of the *Patent Rules*. Having conducted a review of the application and formed the view that the application is in a condition for allowance, there is no need for the panel to hear from the Applicant on the matter.

## ISSUE

- [7] The issue addressed in this recommendation is whether the subject-matter of the claims on file (i.e., the claims on file at the time the FA was written) would have been obvious to a person skilled in the art, contrary to section 28.3 of the *Patent Act*.

## LEGAL PRINCIPLES AND PATENT OFFICE PRACTICE

### Claim construction

- [8] In accordance with *Free World Trust v Électro Santé Inc.*, 2000 SCC 66, essential elements are identified through a purposive construction of the claims done by considering the whole of the disclosure, including the specification and drawings (see also *Whirlpool Corp v Camco Inc.*, 2000 SCC 67 at paras. 49(f) and (g) and 52). In accordance with the *Manual of Patent Office Practice* §13.05, the first step of purposive claim construction is to identify the person of ordinary skill in the art and their relevant common general knowledge. The next step is to identify the problem addressed by the inventors and the solution disclosed in the application. Essential elements can then be identified as those elements of the claims that are required to achieve the disclosed solution.

### Obviousness

- [9] The *Patent Act* requires that the subject-matter of a claim not be obvious. Section 28.3 of the Act provides as follows:

The subject-matter defined by a claim in an application for a patent in Canada must be subject matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to

(a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and

(b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

[10] In *Apotex Inc v Sanofi-Synthelabo Canada Inc*, 2008 SCC 61 at para. 67 [*Sanofi*], the Supreme Court of Canada stated that it is useful in an obviousness inquiry to follow the following four-step approach:

- (1)(a) Identify the notional “person skilled in the art”;
- (b) Identify the relevant common general knowledge of that person;
- (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
- (3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim as construed;
- (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

### Common general knowledge

[11] In this case, the prosecution record indicates some disagreement between the Examiner and the Applicant on what constitutes the common general knowledge. It is therefore helpful to be mindful of the law on the matter.

[12] According to the decision in *General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd*, [1972] RPC 457, [1971] FSR 417 (UKCA) [*General Tire*], cited with approval in *Eli Lilly and Company v Apotex Inc*, 2009 FC 991 at para. 97, there are two classes of documents whose disclosures can form the common general knowledge: individual patent specifications and widely read publications. Regarding individual patent specifications, the court cautioned against indiscriminately adopting the teachings of such documents as common general knowledge:

[I]ndividual patent specifications and their contents do not normally form part of the relevant common general knowledge, though there may be specifications which are so well known amongst those versed in the art that upon evidence of that state of affairs they form part of such knowledge, and also there may occasionally be particular industries (such as that of colour photography) in which the evidence may show that all specifications form part of the relevant knowledge.

## **ANALYSIS**

### The application

[13] The Background to the invention explains that, at one time, mercantile exchanges operated on an “open-outcry” basis in which traders would come together to trade in person. Contemporary trading systems are now computer-based. Traders typically work

remotely from one another and rely on physical communications networks to conduct their business on electronic exchanges that automatically execute trades by matching bids and offers.

- [14] Prior to the present patent application, numerous independent electronic exchanges were available to traders, each effectively constituting a separate market and requiring its own electronic infrastructure consisting of servers, gateways, workstations and so forth. Each exchange also strived to attract clients and increase trading volumes to ensure the financial viability of the exchange. Traders subscribed to the various exchanges, as they considered appropriate, and executed trades directly on any one.
- [15] According to the Detailed Description of the invention on page 6, lines 1-12, the present application provides an aggregated computer-based trading system for hosting a collection of independent electronic exchanges. Each electronic exchange can list a “tradeable object” (e.g., stocks, options, bonds, futures, currency, derivatives and commodities such as grains, energy and metals) for trading amongst buyers and sellers. In simple form, the aggregated trading system receives bids to purchase, and offers to sell, a tradeable object listed at one of the electronic exchanges. The aggregated trading system then automatically directs the bids and offers to the appropriate exchange where the bids and offers may be automatically matched in the corresponding market.
- [16] The system thus acts as a single interface allowing traders to place an order individually to each exchange or simultaneously on multiple exchanges. More particularly, the aggregated trading system has, amongst other things, intraexchange-trading features which allow traders “to efficiently integrate trading at markets listed at each of the various exchanges” (page 6, lines 17-18), which permits traders to provide “trading instructions in advance to the aggregated trading system . . . that include actions to be taken when certain conditions occur in the markets” (page 6, lines 20-22). For example, “when something happens in the first market based on the trading instructions, the aggregated trading system may take an action in the second market, and vice-versa” (page 6, line 24 – page 7, line 1).
- [17] Interexchange-trading capabilities are also facilitated through communication links with external electronic exchanges and their bid/offer matching engines. This feature is said to allow “the aggregated trading system to act on behalf of a trader using preprogrammed



trading instructions with other exchanges that are external to the system” (page 7, lines 8-9).

[18] Several advantages associated with the aggregated trading system are described in the application, including:

- an entity (e.g., a private corporation, public corporation, partnership, an individual or some other body) “may list their tradeable objects at the same aggregated trading system which preferably has distribution to a large number of traders”, thereby giving each entity “instant access to the large number of traders” (page 9, lines 12-14);
- “[t]he aggregated trading system may have a large number of traders already connected through a sophisticated structure of networks. Through these networks, traders may have access to all of the various exchanges that are hosted by the present system including small exchanges” (page 21, lines 18-21);
- “[b]ecause an existing structure is in place, extra expense normally associated with setting up and implementing an exchange to attract the necessary volume may already be set in place by the aggregated trading system” (page 21, line 22- page 22, line 1); and,
- “[w]ithout unnecessary complications, a trader may quickly trade one, some, or all of the tradeable objects listed at the aggregated trading system” (page 22, lines 8-9).

### The claims

[19] There are 50 claims on file; claim 1 is representative and provides the starting point for our claim analysis:

A computer-based system for hosting a collection of one or more independent electronic exchanges for use in electronic trading from remote client devices, the system comprising:

means for hosting the collection of independent electronic exchanges, wherein each independent electronic exchange lists at least one tradeable object for trading among buyers and sellers;

one or more communication links for providing communication between the remote client devices and the system;

means for receiving bids to purchase or offers to sell a tradeable object listed at a particular independent electronic exchange in the collection of independent electronic exchanges from the remote client devices;

the means for receiving bids and offers in communication with a means for directing the bids and offers to a corresponding particular independent electronic exchange within the system;

for each of the received bids and offers, the means for directing the bids and offers parsing that received bid or offer to determine which particular independent electronic exchange corresponds to that bid or offer, and internally routing that bid or offer to the corresponding particular independent electronic exchange within the system, wherein a matching engine for the particular independent electronic exchange receives the bids and offers and automatically matches the bids and offers; and,

means for communicating order book information from each of the collection of independent electronic exchanges from the system to the plurality of remote client devices over the one or more communication links.

### Claim construction

#### *The person skilled in the art and their relevant common general knowledge*

[20] The person skilled in the art was characterized in the FA as “a team including commodity traders, and network designers”. Since neither the R-FA nor the R-SOR appeared to take issue with this characterization, it has been adopted for the purposes of this review.

[21] The prosecution record does, however, indicate some disagreement between the Examiner and the Applicant on what constitutes the common general knowledge.

[22] One key point of common general knowledge at issue concerns the phenomena of “latency”. In the R-FA and R-SOR, the Applicant refers to two types of latency that may occur when executing trades in conventional systems: differential latency and overall latency. According to the Applicant, the former type can occur if an order is placed directly for the same tradeable object at two distinct exchanges geographically remote

from one another, there being a latent effect in executing the trade at the more remote of the two (page 5, R-FA). The latter type of latency can occur when orders are electronically passed through the various physically distinct components of communications networks, e.g., as an order message passes from a trader's terminal, through an external consolidating computer system, and then finally to an electronic communications network (R-FA, pages 6-7).

[23] The matter of latency is important because the Applicant asserts in the R-FA and R-SOR that the claimed aggregated trading system reduces both types, thereby providing advantages over conventional systems, i.e., as the application states: "without unnecessary complications, a trader may quickly trade one, some, or all of the tradeable objects listed at the aggregated trading system" (page 22, lines 8-9).

[24] The Applicant also contends that such advantages are indicative of an inventive step having been taken.

[25] The FA indicates that latency is a matter of common general knowledge since it "reveals that latency issues are known to occur in network architectures" and that "a variety of factors and corrections are used to prevent users from experiencing perceived latency in a network application", in which "one such factor is to control the physical distance between communicating devices". The FA more generally states that the "skilled person would know how electronic exchanges enable trading of commodities, as well as the hardware and software requirements needed to set design an electronic exchange" (page 7).

[26] Two patent documents were cited in the FA as supporting the Examiner's assessment of the common general knowledge:

- Document "D3": US2003/0105810, published June 5, 2003; and,
- Document "D5": US2002/0166117, published November 7, 2002.

[27] According to the FA, paragraphs 0003 and 0004 of D3 "describe the benefits of hosting applications in one location", while paragraphs 0011, 0013, 0016, 0018 of D5 "describe the known issues and benefits of hosting applications in a single location".

[28] The Applicant disputes the Examiner's characterization of the D3 and D5 documents, drawing a comparison of their disclosures to the claimed invention. Concerning D3, the Applicant submits that:

D3 simply notes that multiple logical servers can operate on a single physical computer. D3 does not specify any of the situations in which it might be advisable to provide such servers on a common computer. D3 does not suggest that a differential latency benefit could be achieved by aggregating systems in the manner described and claimed in the present application. [page 10, R-FA]

[29] Concerning D5, the Applicant submits that:

The cited portions of D5 simply note that a given application is typically provided on a central site. These sections refer to a single application provided on "a single central site." The cited portion of D5 appears to only suggest what is already taught by [the reference cited as being the state of the art] - that an individual application (e.g., an individual exchange) could be provided at a single site. This does not, in any way suggest the aggregation of such applications onto a single hosted system. It merely suggests that each individual exchange could be located at its own site. [pages 10-11, R-FA]

[30] The Applicant also contends that neither D3 nor D5 can be considered common general knowledge since their publication dates predate the claim date of the invention by a relatively short time. Citing the Supreme Court decision in *Sanofi, supra*, for the proposition that "common general knowledge means knowledge generally known by persons skilled in the art at the relevant time", the Applicant submits that:

There is no reason to suggest that during the minimal time period between the publication of D3 and D5 and the claim date the teachings of those documents would have become widely known so as to become common general knowledge to the person skilled in the art. [R-FA, page 12]

[31] We are mindful, per the *General Tire* decision, that "individual patent specifications and their contents do not normally form part of the relevant common general knowledge". In the present case, however, we are of the opinion that the Examiner has properly relied on the passages cited in D3 and D5 in assessing the common general knowledge of the person skilled in the art, bearing in mind that such a person, considered as a team, includes a network designer. The cited passages are found in the background portions of each document, and accordingly are not disclosures that a network designer would regard as new or remarkable in their own right. Rather, in our view, they reflect salient aspects

of the common general knowledge expected to be possessed by such a person. We are also not satisfied that the purported short time interval between the relevant dates of D3, D5 and the application is a consideration that, on its own, warrants ignoring either the D3 or D5 document. The relevant information conveyed in the cited passages, being summaries of the prior art, necessarily predates the present application by a time period considerably longer than what the Applicant suggests.

[32] In our view, having reviewed the relevant passages of D3 and D5, the salient aspects of the common general knowledge possessed by the person skilled in the art, considered as a network designer, are the following:

- “Virtualization technology enabled multiple logical servers to operate on a single physical computer” (D3, para. 0004);
- “Each logical server is operated substantially independent of other logical servers and provides virtual isolation among users effectively partitioning a physical server into multiple logical servers” (D3, para. 0004);
- “Bottlenecks exist in various system resources, such as memory, disk I/O, processors and bandwidth” (D5, para. 0013);
- “One problem faced by on-line application providers or other users of distributed computing networks is that the network is actually very slow for interactive services as a result of large traverses across the network, because communication signals run into the inherent latency of the network” (D5, para. 0016);
- “[L]ong distance routings run into large amounts of latency delay” (D5, para. 0016);
- “Prior art application processing systems require an application provider to route a user to a single central site to allow access to the applications. Every user attempting to access the application is directed to the single central site. Thus, resulting in a bottle neck at the central site” (D5, para. 0018).

[33] It seems to follow from the foregoing assessment, as the Examiner suggests, that latency in network architectures was a commonly known problem and that it could be caused by things such as bottlenecks in various system resources and the physical length of network

routings. That is not to say, however, that D3 or D5 support the conclusion that latency in the specific context of electronic mercantile exchanges was a commonly known problem.

[34] The prosecution record does not establish the common general knowledge of the person skilled in the art, considered as a commodities trader. We have therefore relied on the information provided in the Background portion of the present application to assess the common general knowledge in that respect, which we understand would include:

- an electronic trading platform handles the matching of bids and offers placed by traders subscribing to an electronic exchange;
- traders are connected to an exchange's electronic trading platform through a communication link and through an interface program that facilitates real-time electronic messaging between themselves and the exchange;
- upon viewing an electronic message containing market information, traders may take certain actions such as sending buy or sell orders, adjusting existing orders, deleting orders, or otherwise managing orders;
- traders may use software tools on their client devices to automate trades;
- exchanges are located geographically and overseen by governmental regulatory bodies: for example, the Commodity Futures Trading Commission oversees the Chicago Mercantile Exchange;
- to set up an electronic exchange, one must purchase or lease space to house the computer equipment, then acquire computer equipment such as servers, gateways, workstations and so forth to run the exchange; and,
- once an exchange is up and running, it needs continuous support to maintain a robust trading environment.

*The problem faced by the inventors and its proposed solution*

[35] On page 6 of the FA, the Examiner refers to the description as informative of the problem faced by the inventors:

As per page 6, line 13, through to page 7, line 15, the problem faced by the inventor is that a trader must make multiple trades on different exchanges. Each

different exchange requires a separate portal or interface to place orders. Further, offers at multiple exchanges must be handled separately.

[36] According to the FA, the proposed solution is to “have an aggregated trading system, in which a single portal is presented to a trader” that requires “a technical solution to implement an interface that acts to enable communications to multiple back-end exchanges”.

[37] Since the Applicant has not commented on either of these aspects, they have been adopted for the purposes of this review.

*The essential elements of the claims*

[38] The FA indicates that “all claimed elements are considered to be essential to the solution”. Again, the Applicant has not commented on this assessment. Since we see no reason to disagree with the Examiner’s assessment of the essential elements, we have proceeded on the same basis.

Obviousness

*The person skilled in the art and the relevant common general knowledge*

[39] The person skilled in the art and the common general knowledge have been defined above.

*Identify the inventive concept of the claim in question or if that cannot be readily done, construe it*

[40] According to the FA, the inventive concept “relates to a single interface which is able to aggregate multiple back end electronic exchanges into a single portal for a trader, who acts as a client of the system”.

[41] The Applicant did not express disagreement with this assessment in either the R-FA or R-SOR.

[42] We would point out that, according to the construction provided above, all the claim elements are considered essential. In our view, this means that the inventive concept amounts to a loose paraphrase of the claim and that all claim elements are implicitly resident in the inventive concept, even if not explicitly stated to be the case. This understanding is consistent with the Examiner's element-by-element comparative analysis provided under Step 3 of the *Sanofi* approach to obviousness, discussed below.

*Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed*

[43] According to the FA, all of the claims on file do not comply with section 28.3 of the *Patent Act* because their subject-matter would have been obvious at the claim date to a person skilled in the art or science to which it pertains having regard to document "D2", in view of common general knowledge.

[44] Document D2 is Patent Cooperation Treaty document WO 00/63814 published on October 26, 2000.

[45] In brief, D2 "relates to computer systems for trading and analyzing selected securities, and more particularly, software that aggregates and integrates securities trading information and order placement from various alternative trading systems ('ATS'), such as electronic communication networks ('ECN'), with NASDAQ or other electronic exchanges" (page 1, lines 4-7). The abstract portion of the document provides further details:

A security trading consolidation system where each customer uses a single trader terminal (101) to view, and analyze security market information from and to conduct security transactions with two or more ECNs, or other comparable ATSS, alone or in combination with one or more electronic exchanges. A consolidating computer system (100) supplies the market information and processes the transactions. The consolidating computer system (100) aggregates order book information from each participating ECN order book computer including security, order identification (14), and bid/ask prices information. Bid and ask prices for participating electronic exchanges may be integrated into the display. The combined information is displayed to a customer by security and by bids and offers, and then sorted by price, volume, and other available attributes as desired by the customer.



[46] D2 therefore bears some resemblance to the invention claimed in the present application. More particularly, the invention of D2 and the one now claimed utilize common components for similar purposes. Further, the “consolidating computer system” of D2 acts as an intermediary between a trader’s terminal and a number of existing individual electronic exchanges, permitting consolidation of a number of traders’ order books over a number of electronic communication networks.

[47] In the FA, the Examiner conducted an element-by-element comparative analysis of D2 and the claimed invention at this point of the *Sanofi* approach to obviousness. In the Examiner’s view, all of the essential elements of the claimed invention are revealed in D2, save one. The Applicant disagreed, pointing out that there are two differences.

[48] It appears to us that an “electronic exchange” as called for in the claims has been considered analogous in the Examiner’s analysis to a “server” in network design parlance. Although arguably not inconsequential, any distinction in that regard between the claims and D2 therefore appears to be purely semantic. Further, we note that the Applicant did not argue otherwise. With that in mind, the sole difference identified by the Examiner between representative claim 1 and D2 is the hosting of multiple electronic exchanges, or servers, together at the same location:

As shown above, the claims include a feature of having all the electronic exchanges hosted in one location. Though the servers are certainly “hosted” in D2, they appear to be hosted in different locations. D2 does not show hosting servers together in a single location. [FA, page 9]

[49] In the R-FA and R-SOR, the Applicant argued that a second difference exists and emphasized that it had not been accounted for in the Examiner’s analysis, or even acknowledged. The second difference between the claimed invention and D2 was said to be a routing “switch” *internal* to the claimed system that directs a trader’s bid or offer to the appropriate electronic exchange—the exchanges themselves also being internal to the same system. By contrast, the Applicant pointed out that D2 merely has a consolidating computer system that collects order books from *external* exchanges:

Thus, the claimed solution differs from D2 in that, according to the present application: 1) the electronic exchanges are hosted on a single system; and 2) the switch (i.e., the “means for directing the bids and offers”) is provided on that same hosted system. [R-SOR, page 8; emphasis in original]

[50] We agree that a second difference exists between the claimed invention and D2. Claim 1 specifies the presence of a “means for directing the bids and offers to a corresponding particular independent electronic exchange within the system”, i.e., an “exchange switch that in turn directs bids or offers to the appropriate electronic exchange” (description, page 10, lines 10-11; reference numerals omitted). Claim 1 further specifies that “the means for directing the bids and offers parsing that received bid or offer to determine which particular independent electronic exchange corresponds to that bid or offer, and internally routing that bid or offer to the corresponding particular independent electronic exchange within the system”.

[51] Although the Examiner’s analysis provided in the FA points to page 13, lines 20-23 of D2 in relation to the switch feature of the claims, it does not appear that D2 discloses it as being internal to the system. The relevant passage from D2 simply indicates that the consolidated computer system (which itself is external to a collective of electronic exchanges) “will determine the best actual route for the order, including breaking the order up into multiple suborders which are routed separately”.

[52] Therefore to summarize, the differences between D2 and the inventive concept of claim 1 are two-fold:

- 1) D2 does not disclose the hosting of multiple electronic exchanges together on the same host system; and,
- 2) D2 does not disclose a routing switch, located on that same host system, for internally directing the bids and offers to the electronic exchanges.

*Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?*

[53] The question at this stage of the analysis is whether the two differences noted above constitute steps which would have been obvious to the person skilled in the art in view of the common general knowledge. In our view, they would not have been obvious at the relevant date and would have required a degree of invention. It warrants pointing out that the relevant date in this case is the priority date of November 6, 2003—a date which the

Applicant, at the risk of adopting an impermissible hindsight-based analysis, reminds us predates many of today's commonplace internet-based technologies.

[54] Regarding the first difference, the FA on pages 9-10 refers to documents D3 and D5, cited as reflective of the common general knowledge, to make the point that "the claimed difference of Hosting Locally seems to provide a benefit with the administration of multiple applications\exchanges" and that the "benefit of hosting multiple applications at one site is well established".

[55] In the general sense, we agree that it was commonly known that multiple applications or services could be hosted at one site. It is arguable, then, that the person skilled in the art in the present case would have thought, by analogy, to group similar entities, i.e., electronic exchanges, together on the same host system and thereby derive an administrative benefit.

[56] Based on the record before us, we are not convinced, however, that the person skilled in the art in this case would have thought to do so. Nor are we satisfied that such a person could have done so in the manner claimed by relying only on commonly known implements.

[57] In our view, the person skilled in the art in this case would not have thought to group electronic exchanges together, bearing in mind that such exchanges were commonly known only to be located and regulated in geographically distinct locations, as pointed out in the R-FA.

[58] Furthermore, even if the person skilled in the art would have conceived of the idea of hosting of multiple electronic exchanges together on the same host system, it is not clear to us how such a person could and would have done so in the manner claimed without exercising inventive effort.

[59] The hosting of multiple electronic exchanges together on the same host system in the manner claimed entails doing so in an interdependent fashion so as to permit internal routing of orders to the appropriate exchange or, more generally speaking, to permit intraexchange-trading capabilities (as discussed above at para. 16). In our view, the person skilled in the art would not have arrived at the claimed subject-matter because the

common general knowledge does not teach interdependency amongst co-hosted servers, or by analogy, co-hosted electronic exchanges.

- [60] On the contrary, it was common general knowledge to have servers “operated *substantially independent* of other logical servers” to provide “*virtual isolation among users* effectively partitioning a physical server into multiple logical servers” (D3, para. 0004).
- [61] This brings us to the second difference between D2 and the inventive concept. Notably, there is no suggestion in any of the cited references to relate electronic exchanges to one another through the use of a feature uniquely found in the claimed invention, i.e., a routing switch, located on that same host system, for internally directing the bids and offers to the electronic exchanges. Therefore, even if the person skilled in the art would have thought to host multiple electronic exchanges together on the same host system, and had proceeded to do so, such a person could not have configured the host system in the interdependent manner claimed without relying on inventive ingenuity.
- [62] Regarding the advantages of the claimed invention, we are of the view that the claimed invention possesses a meaningful functional advantage over and above the administrative benefit realized by hosting multiple applications at one site. We agree that such a benefit would have been generally known and expected by the person skilled in the art. We do not agree, however, that the reduction of overall latency (explained above) can seemingly be disregarded for the reason that “hosting locally will [not] guarantee an improved latency” (FA, page 10) simply because factors other than proximity can cause latency.
- [63] As the Applicant has pointed out (R-FA, page 8), relative to the system of D2 (and assuming the same operating conditions), latency would necessarily be ameliorated through the claimed invention since it uniquely uses a routing switch, located on that same host system, for internally directing the bids and offers to the electronic exchanges rather than relying on more complex external routing as required in the system of D2.

*Other claims on file*

- [64] Since claim 1 has been found to define subject-matter that would not have been obvious, the subject-matter of remaining claims 2-50 would also necessarily not have been obvious

because they are either of the same scope or are narrower in scope by virtue of claim dependency.

### Conclusion

[65] In our view, the subject-matter of the claims would not have been obvious at the relevant date to the person skilled in the art. The application is therefore compliant with section 28.3 of the Act.

### **RECOMMENDATION OF THE BOARD**

[66] For the reasons set out above, we are of the view that the rejection is not justified on the basis of the defect indicated in the FA and have reasonable grounds to believe that the application complies with the *Patent Act* and the *Patent Rules*. We recommend that the Applicant be notified in accordance with subsection 30(6.2) of the *Patent Rules* that the rejection of the application is withdrawn and that the application has been found allowable.

Ed MacLaurin  
Member

Lewis Robart  
Member

Mark Couture  
Member

## COMMISSIONER'S DECISION

[67] I concur with the findings and the recommendation of the Board. In accordance with subsection 30(6.2) of the *Patent Rules*, I hereby notify the Applicant that the rejection of the application is withdrawn, the application has been found allowable and I will direct my officials to issue a Notice of Allowance in due course.

Johanne Bélisle  
Commissioner of Patents

Dated at Gatineau, Quebec,  
this 3<sup>rd</sup> day of January, 2018