

Citation: METAVANTE CORPORATION (Re), 2020 CACP 4  
Commissioner's Decision #1524  
Décision du Commissaire #1524  
Date: 2020-04-29

TOPIC: O-00 Obviousness  
B-22 Not Supported by Disclosure  
C-00 Adequacy or Deficiency of  
Description  
B-00 Indefiniteness  
SUJET: O-00 Évidence  
B-22 Non appuyée par la divulgation  
C-00 Caractère Adéquat ou Inadéquat de  
la Description  
B-00 Indéfini

Application No. : 2,408,599

Demande n° 2 408 599

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,408,599, having been rejected under subsection 30(3) of the *Patent Rules* (SOR/96-423) as they read immediately before October 30, 2019, has consequently been reviewed in accordance with paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251). The recommendation of the Board and the decision of the Commissioner are to refuse the application.

Agent for the Applicant: \_

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## INTRODUCTION

- [1] This recommendation concerns the review of rejected Canadian patent application number 2,408,599, which is entitled “ELECTRONIC BILL PRESENTMENT AND PAYMENT SYSTEM” and is owned by METAVANTE CORPORATION (the Applicant).
- [2] A review of the rejected application has been conducted by the Patent Appeal Board (the Board) pursuant to paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251) (the *Patent Rules*). As explained in more detail below, our recommendation to the Commissioner of Patents is to refuse the application.

## BACKGROUND

### The application

- [3] Canadian patent application 2,408,599, based on a previously filed *Patent Cooperation Treaty* application, with a claimed priority date of May 9, 2000, is considered to have a filing date of May 9, 2001, and was laid open to public inspection on November 15, 2001.
- [4] The application relates to electronic bill presentment and payment. More specifically, it is directed to a switching system for bill presentment and payment that supports multiple message standard protocols over a network.

### Prosecution history

- [5] On June 27, 2017, a Final Action (FA) was issued pursuant to subsection 30(4) of the *Patent Rules* (SOR/96-423) as they read immediately before October 30, 2019 (*former Rules*), in which the application was rejected on the basis of lack of support, obviousness, lack of sufficiency, and indefiniteness. The FA stated that claims 1 to 29, dated February 5, 2010 (claims on file), were obvious and did not comply with section 28.3 of the *Patent Act*, that claims 1, 9, 17, and 25 on file were not fully supported by the description and did not comply with section 84 of the *former Rules* (now section 60 of the *Patent Rules*), that the description did not correctly and fully describe the invention and did not comply with paragraph 27(3)(d) of the *Patent Act*, and that claim 9 on file was indefinite and did not comply with subsection 27(4) of the *Patent Act*.
- [6] On December 22, 2017, a response to the FA (R-FA) was filed by the Applicant. In the R-FA, the Applicant argued that the claims on file were fully supported and enabled by the

specification, were not obvious, and were not indefinite. No amendment was submitted in the R-FA.

- [7] After considering the R-FA, in a Summary of Reasons (SOR), the Examiner maintained the rejection on the basis of lack of support, obviousness, lack of sufficiency, and indefiniteness. We note that the SOR at page 1 identifies a “Subject Matter” defect in section B, which is considered to be a mistake due to inadvertence. We consider the first maintained defect in the SOR in section B to be the lack of support defect raised in the FA.
- [8] Although the Examiner only referred to subsection 27(3)(d) of the *Patent Act*, in this review, we consider that subsection 27(3)(b) of the *Patent Act* is at issue, as the Examiner’s arguments in the FA appeared to focus on whether the specification enabled the skilled person to practise the claimed invention.
- [9] Since the Examiner maintained the position that the application did not comply with *Patent Act* and *Patent Rules*, as identified in the FA, the application was forwarded to the Board on February 7, 2018, along with the SOR, which was forwarded to the Applicant on February 9, 2018.
- [10] On May 1, 2018, the Applicant indicated its continued interest in the application being reviewed by the Board.
- [11] The present panel (the Panel) was formed to review the application under paragraph 199(3)(c) of the *Patent Rules*.
- [12] In a preliminary review letter dated November 21, 2019 (the PR letter), the Panel presented its preliminary analysis and rationale as to why the claims on file would have been obvious and did not comply with paragraph 28.3(b) of the *Patent Act*. It was also the Panel’s preliminary view that the specification enabled the skilled person to make and use the claimed invention and complied with subsection 27(3) of the *Patent Act*, that the claims on file were fully supported by the description and complied with section 60 of the *Patent Rules*, and that the claims on file were not indefinite and complied with subsection 27(4) of the *Patent Act*.
- [13] In a letter dated December 11, 2019, the Applicant indicated that it did not wish to schedule an oral hearing.
- [14] In another letter dated December 20, 2019 (R-PR), the Applicant submitted further

arguments and comments regarding the analysis of the PR letter. In a letter dated January 27, 2020, the Applicant indicated that no further submissions would be made.

## **ISSUES**

[15] There are four issues to be considered in this review:

- Whether the claims on file are indefinite and do not comply with subsection 27(4) of the *Patent Act*;
- Whether the claims on file define subject-matter that would have been obvious and do not comply with section 28.3 of the *Patent Act*;
- Whether the claims on file are not fully supported by the description and do not comply with section 60 of the *Patent Rules*; and
- Whether the specification does not enable the skilled person to make and use the claimed invention and does not comply with subsection 27(3) of the *Patent Act*.

[16] In this review, we will first address the indefiniteness issue. Second, we will consider the obviousness issue. Finally, we will consider lack of support and enablement issues together.

## **LEGAL PRINCIPLES AND OFFICE PRACTICE**

### Purposive construction

[17] 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 v Camco*, 2000 SCC 67, at paragraphs 49(f) and (g) and 52). In accordance with the *Manual of Patent Office Practice* (CIPO) at §12.02, revised June 2015, the first step of purposive claim construction is to identify the skilled person and his or her relevant common general knowledge (CGK). The next step is to identify the problem addressed by the inventors and the solution put forth in the application. Essential elements can then be identified as those required to achieve the disclosed solution as claimed.

### Indefiniteness

[18] Subsection 27(4) of the *Patent Act* requires claims to distinctly and explicitly define the

subject-matter of the invention:

The specification must end with a claim or claims defining distinctly and in explicit terms the subject-matter of the invention for which an exclusive privilege or property is claimed.

[19] In *Minerals Separation North American Corp v Noranda Mines Ltd*, [1947] Ex CR 306, 12 CPR 99 at page 146, the Court emphasized both the obligation of an applicant to make clear in the claims the ambit of the monopoly sought and the requirement that the terms used in the claims be clear and precise:

By his claims the inventor puts fences around the fields of his monopoly and warns the public against trespassing on his property. His fences must be clearly placed in order to give the necessary warning and he must not fence in any property that is not his own. The terms of a claim must be free from avoidable ambiguity or obscurity and must not be flexible; they must be clear and precise so that the public will be able to know not only where it must not trespass but also where it may safely go.

### Obviousness

[20] The *Patent Act* requires that the subject-matter of a claim not be obvious. Section 28.3 of the *Patent Act* reads:

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.

[21] In *Apotex Inc v Sanofi-Synthelabo Canada Inc*, 2008 SCC 61, at paragraph 67, 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”;

(1)(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?

### Enablement

[22] As explained in the PR letter (pages 5 and 6), a review of the prosecution indicates to us that the objections in the FA under subsection 27(3) of the *Patent Act* and section 60 of the *Patent Rules* are directed to the question of whether the specification of the application enables the skilled person to make and use the claimed invention. Any concern over non-compliance with section 60 of the *Patent Rules* we take as being subsumed within that inquiry.

[23] Paragraph 27(3)(b) of the *Patent Act* states that the specification of an invention must:

set out clearly the various steps in a process, or the method of constructing, making, compounding or using a machine, manufacture or composition of matter, in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it pertains, or with which it is most closely connected, to make, construct, compound or use it[.]

[24] A positive determination that the specification complies with paragraph 27(3)(b) of the *Patent Act* requires that, having only the specification, the person of skill in the art be able to produce the invention using only the instructions contained in the disclosure (*Teva Canada Ltd v Novartis AG*, 2013 FC 141 [*Teva*], citing *Teva Canada Ltd v Pfizer Canada Inc*, 2012 SCC 60, and *Consolboard v MacMillan Bloedel* (1981), 56 CPR 2d 145 (SCC)). Although the CGK can be relied upon, the person of skill in the art should not be called upon to display inventive ingenuity or undertake undue experimentation.

## **ANALYSIS**

### Purposive construction

[25] There are 29 claims on file, including independent claims 1, 9, 17, and 25, and dependent claims 2 to 8, 10 to 16, 18 to 24, and 26 to 29. In our view, claims 1, 9, 17, and 25 are representative of the claims on file:

1. A switching system for electronic presentment and payment of bills over a network, comprising:

a first consumer service provider device which is in electronic communication with a first consumer terminal;

a first biller service provider device which is in electronic communication with a first biller terminal;

a second consumer terminal;

a second biller terminal; and

a switching network which is in electronic communication with said first consumer service provider device using one of a first message standard protocol and a second message standard protocol, with said first bill service provider device using one of said first and second message standard protocols, with said second consumer terminal using one of said first and second message standard protocols, and with said second biller terminal using one of said first and second message standard protocols, routing presentment information between said first consumer service provider or said second consumer terminal and said first bill service provider or said second biller terminal, said switching network being a multi-standard switch configured to facilitate electronic communication between said first consumer service provider or said second consumer terminal and said first bill service provider and said second biller terminal irrespective of which message standard protocol each of said first consumer service provider, said first bill service provider, said second consumer terminal, and said second biller terminal use.

9. A switching system for electronic presentment and payment of bills over a network, comprising:

a consumer terminal;

a biller terminal; and

a switching network which is in electronic communication with said consumer terminal using one of a first message standard protocol and a second message standard protocol and with said biller terminal using one of said first and second message protocols, exchanging billing information between said consumer terminal and said biller terminal irrespective of which message protocol each of said consumer terminal and said biller terminal use, said switching network routing bill summary data generated by said biller terminal for presentment at said consumer terminal, complete bill data being accessible only by direct communications between said consumer terminal and said biller terminal.

17. A method for electronic presentment and payment of bills over a network, comprising:

providing a switching network for facilitating electronic presentment and payment of bills;

establishing electronic communication between said switching network and first and second biller terminals and first and second consumer terminals, said switching network being a multi-standard switch configured to communicate with said first and second biller terminals and said first and second consumer terminals in either of at least first and second message standard protocols, said switching network communicating with at least one of said first and second biller terminals and said first and second consumer terminals using said first



message standard protocol and at least one of said first and second biller terminals and said first and second consumer terminals using said second message standard protocol;

generating bill summary data from complete bill data provided by each of said first and second billing terminals;

selectively routing portions of said bill summary data via the switching network to present appropriate portions of said bill summary data to said first and second consumer terminals.

25. A switching system for electronic presentment and payment of bills over a network, comprising:

a first consumer terminal;

a second consumer terminal;

a first biller terminal;

a second biller terminal; and

a switching network in electronic communication with said first and second consumer terminals and said first and second biller terminals, said switching network for routing presentment information from said first and second biller terminals to said first and second consumer terminals and payment information from said first and second consumer terminals and said first and second biller terminals, said switching network being a multi-standard switch configured to communicate with said first and second consumer terminals and said first and second biller terminals in either of first and second message standard protocols, said switching network communicating with at least one of said first and second consumer terminals and said first and second biller terminals using said first message standard protocol and at least one of said first and second consumer terminals and said first and second biller terminals using said second message standard protocol.

*The person skilled in the art*

[26] In the PR letter (page 6), we adopted the identification of the person skilled in the art as stated in the FA (page 3):

The skilled person would be from the field of computer/software engineering as well as someone being knowledgeable in electronic billing systems.

[27] The Applicant did not dispute this characterization in the R-PR and we adopt it for our analysis.

*The common general knowledge*

[28] In the PR letter (pages 6 to 7), we adopted the identification of CGK of the skilled person as stated in the FA (page 4):

The skilled person would be knowledgeable in electronic billing systems which utilize well known and standardized “protocols” or “standards”. The skilled person would be familiar with “multi standard” switches or routers (any router/switch that handles multiple, undefined “standards”) which facilitate communication between different parties utilizing different well known standards such as the data format communication “standards” such as PDF “standard” for documents. The skilled person is also aware that communicating via different mediums necessarily utilizes different “standards”. The skilled person is aware that media such as video utilizes mp3, mp4, wma, mkv, h.264, ogg “protocols”, telephony uses SIP “standards”, personal digital assistants use HTTP and that switches or routers as commonly known in the art MUST support use all of these “standards”. The skilled person is also familiar with various open protocols/standards/formats used to communicate financial information such as OFX and IFX open financial information formats/protocols/standards [Emphasis in the original].

[29] The Applicant did not dispute this characterization in the R-PR and we adopt it for our analysis.

[30] In the PR letter (pages 7 to 8), we also identified additional CGK:

During the preliminary review, we have also relied on the following document to more clearly establish the CGK:

Garguilo et al., “Guidelines for the Evaluation of Electronic Data Interchange Products”, National Institute of Standards and Technology Special Publication 500-231, February 1996.

*Garguilo et al.* is part of the technology guidelines provided by National Institute of Standard and Technology (NIST) of the United States. It provides an in-depth introduction on Electronic Data Interchange (EDI) technologies and related EDI products. For example, in sections 2.7, 3.1.1, 3.3.3, and 5.2, it recites:

EDI trading partners seldom communicate directly, but rather, use the services of a third-party Value-Added Network (VAN). EDI VANs provide a communications network to connect trading partners, regardless of individual hardware platforms or communications protocols. Each partner connects to the VAN, and the VAN manages the connections to all the trading partners.

...

EDI users often exchange business information with many trading partners. A diverse set of trading partners may require EDI software that supports a diverse set of EDI standards. For example, a user transacting business with four trading partners might need to support two versions of X12 and two versions of EDIFACT. In addition, some trading partners might mandate more specialized EDI syntaxes, such as the Warehouse Industry Network Standard (WINS).

...

EDI VANs provide many services for their subscribers, including electronic mailboxing of EDI transmissions, protocol conversions, and EDI audit trails.

...

If a user purchases an EDI product that does not provide communications software, the translator must be integrated with some communications system.

Based on certain points of CGK extracted from *Garguilo et al.* and the “Description of Related Art” section of the instant application, we also consider the following points of knowledge to have been part of the relevant CGK:

- Awareness and understanding of the need to translate/convert financial data messages from different participants that use different message standard protocols;
- Design and implementation of message standard protocol translators (i.e., EDI translators); and
- Design and implementation of common routing functionality of a routing device [Emphases in the original].

[31] In the R-PR (page 1), the Applicant stated that it wants to “address in particular the Boards’ purported ‘common general knowledge’ of the person of skill in the art” and referenced the Panel’s use of *Garguilo et al.* However, the Applicant did not provide further arguments or comments regarding the CGK identification in the PR letter.

[32] For completeness, we provide further clarification regarding the additional CGK identified in the PR letter.

[33] EDI technologies are used to exchange business data, such as data regarding invoices, orders, and transactions, electronically between business entities. Many EDI standards, such as X12 and EDIFACT, have been used since the 1970s to facilitate business data exchanges.

[34] The need to translate or convert EDI messages that are encoded with different message standards between business entities was widely recognized before the claim date of the present application and many technologies were developed to address this issue. Among these technologies, EDI translators, which are used to translate user-generated business data into data that conforms to EDI standards, were often capable of supporting multiple EDI message standards, such as X12 and EDIFACT.

- [35] *Garguilo et al.* describes and tests functionalities of commercially available EDI products “to assist the reader in determining which EDI product, among many candidate products, best meets the reader’s requirements” (section 1). This document represents US national guidelines regarding commercial EDI products available in 1996.
- [36] As stated in the specification (page 1), the present application is directed to an electronic bill presentation and payment system. The claims on file recite a switching system comprising a switching network for exchanging electronic payment data between participants. Therefore, in our view, the claimed system is a type of EDI system since the system is used to exchange bills data electronically between computers over a network using standard message protocols for business data. As defined in *Garguilo et al.* (section 1), the data exchange process performed by the claimed system is directed to an EDI process of “computer-to-computer exchange of standardized business information”. Therefore, we are of the view that information related to the EDI field, as illustrated by *Garguilo et al.*, is part of the relevant CGK of the skilled person.

#### *Meaning of Terms*

- [37] As explained in the PR letter (pages 8 to 9), we consider the meanings of the expressions of “multi-standard switch” and “message standard protocol”, which are used in the claims on file, significant to the analysis of obviousness and enablement. Since the specification of the application does not provide definitions of these two terms, and there are no established meanings for these terms in the art, we adopt the estimation of these terms in the PR letter for this review, based on the CGK of the skilled person when considering the specification as a whole:

In the description (para 2, page 6), the specification reads:

Switching network 115 is an open, interoperable routing device. It is “open” in that any financial institution or financial institution sponsored third party processor may become a Participant. Furthermore, the switching network is “interoperable” in that the consolidation of presentment and/or payment of bills may be accomplished using a single system. In a preferred embodiment the switching network 115 is an HTTP proxy server that uses a conventional message standard protocol, for example, Open Financial Exchange (OFX), Interactive Financial Exchange (IFX), or preferably a dual standard message environment supporting both OFX and IFX messages. Alternatively, any other type of message standard protocol for EBPP may be used. The system is flexible in that each Participant may use its own system and Participants need not use the same message standard in order to exchange information.

For example, the CSP may use an OFX message standard and exchange information with a BSP that employs an IFX message standard.

We note that the specification mentions two examples of “message standard protocols”: OFX and IFX, both being XML-based message exchange protocols. The specification continues to state that “any other type of message standard protocol for EBPP may be used”. We also note that throughout the specification no further details regarding the contents and implementations of the “message standard protocols” and the “multi-standard switch” are provided.

Furthermore, the specification recites that a “switching network is ... a routing device” (page 6, para 2). The claims recite the “switching network being a multi-standard switch” (see claims 1, 17, and 25). Therefore, in this review, we consider that the “switching network” as claimed has the same meaning as the “multi-standard switch”. Moreover, we consider that the “switching network” as claimed is capable of processing one or more “message standard protocols”.

After considering the specification as a whole, we provide our estimation of the skilled person’s understanding of these terms for this review:

- Message standard protocol: any standardized message protocol that may be used to exchange financial data.
- Multi-standard switch: any routing device that can route messages based on different message standard protocols between endpoint devices that are connected to the routing device. The “routing device” in this regard refers to a logical device for routing, which may comprise one or more physical devices.

[38] The Applicant did not dispute this characterization in the R-PR and we adopt it for our analysis.

### *Essential Elements*

[39] As explained in the PR letter (page 6), we have not undertaken a determination with regard to which claimed elements are essential. By taking into account all the elements of the claims on file, as set out below, it is possible to reach a conclusion regarding obviousness of these claims that would not be affected by the omission of any non-essential elements.

[40] In the R-PR, the Applicant did not dispute this approach.

### Indefiniteness

[41] In the PR letter (pages 9 to 10), we provided our analysis and rationale regarding why the claims on file were not indefinite:

In the FA (pages 8 and 9), the Examiner stated that claim 9 is indefinite:

The phrase "... said switching network being a multi standard switch configured to facilitate ..." renders the claim unclear as a "network" has been redefined as a (singular) "switch". The description defines a "switching network" as "a routing device" (i.e. also known as a router). It is confusing to a skilled person in the art to refer to a routing device as a "network". There does not appear to be any need for this redefinition which introduces confusion and ambiguity to the claim when read by a skilled person in the art.

We note that claims 1, 17, and 25 include this feature, instead of claim 9. In any case, this identification does not affect our consideration on this issue.

In the RFA (page 3), the Applicant contended that:

"Switching network 115 is an open, interoperable routing device." Specification, p. 6, 11, 12. One of skill in the art would understand the "network" in claim 1 means a routing device and would not be confused.

As the Examiner is aware, it has long been understood that the language of the claims is to be construed in view of the specification as a whole, and that the applicant can serve as their own lexicographer. (MOPOP 9.05.03).

We preliminarily agree. The specification (page 6) recites that the switching network is a routing device, and "[i]n a preferred embodiment the switching network 115 is an HTTP proxy server that uses a conventional message standard protocol, for example, Open Financial Exchange (OFX), Interactive Financial Exchange (IFX), or preferably a dual standard message environment supporting both OFX and IFX messages. Alternatively, any other type of message standard protocol for EBPP may be used". Therefore, based on our definition of the "multi-standard switch" and considering the specification as a whole, we are of the preliminary view that the feature of "switching network being a multi-standard switch" does not introduce ambiguity to a skilled person.

With respect to the argument from the Examiner that a "network" should not be defined as a singular device, as we explained above, the "multi-standard switch" itself may be a logical routing device comprising one or more physical devices (see the "Meaning of terms" section above). In this case, we are of the preliminary view that the usage of the term "network" does not bring additional ambiguity.

[42] In the R-PR, The Applicant did not dispute our analysis regarding the indefiniteness issue. Therefore, it is our view that the claims on file are not indefinite and comply with subsection 27(4) of the *Patent Act*.

### Obviousness

(1)(a) Identify the notional "person skilled in the art"

[43] The person skilled in the art has been identified above at paragraph [26]

*(1)(b) Identify the relevant common general knowledge of that person*

[44] The relevant CGK of the skilled person has been identified above at paragraph [28] and [30].

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

[45] In the PR letter (pages 10 to 11), we took into account all the elements of the claims for our consideration of obviousness. We consider the following combination of elements as representative of the independent claims on file:

A switching system for electronic presentment and payment of bills over a network, comprising endpoint devices selected from the following: one or more consumer service provider devices (CSPs), one or more biller service provider devices (BSPs), one or more consumer terminals, and one or more biller terminals, wherein the endpoint devices may use different message standard protocols, said switching network being a multi-standard switch configured to facilitate electronic communications between the endpoint devices.

[46] Additionally, independent claims 9 and 17 recite the following features:

(1) “[Claim] 9. ... said switching network routing bill summary data generated by said biller terminal for presentment at said consumer terminal, complete bill data being accessible only by direct communications between said consumer terminal and said biller terminal”; and

(2) “[Claim] 17. ... generating bill summary data from complete bill data provided by each of said first and second billing terminals; selectively routing portions of said bill summary data via the switching network to present appropriate portions of said bill summary data to said first and second consumer terminals”.

[47] Further features of the dependent claims will be considered at step (4).

*(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*

[48] In the PR letter (page 6), the following document was cited as the closest prior art:

• D1: United States Patent 5,963,925 October 5,1999 Kolling et al.

[49] D1 discloses an Electronic Statement Presentment (ESP) system that allows a biller to direct a statement or invoice electronically to a consumer.

[50] The PR letter continued to identify the differences between D1 and the inventive concept of

the independent claims:

In our preliminary view, the following elements of independent claims 1, 9, 17, and 25 are disclosed by D1:

- a switching network that is used to route financial data such as billing data for presentation and payment between different endpoint devices (col. 4, line 30, to col. 6, line 34, Fig. 3), wherein the endpoint devices may be one or more of the following:
  - a consumer service provider (Fig. 2, col. 7 to 8, “consumer service provider”),
  - a biller service provider (Fig. 2, col. 7 to 8, “biller service provider”),
  - a consumer terminal (Fig. 2, “consumer end point”), and
  - a biller terminal (Fig. 2, “biller end point”).

D1 also discloses that a wide variety of message standard protocols, such as OFX, may be used to communicate messages between devices in the system (col. 21, lines 28 to 40, and col. 33, lines 17 to 29). However, D1 does not explicitly suggest that the system may accommodate more than one message standard protocols at the same time.

Therefore, in our preliminary view, the difference between D1 and the features of the independent claims of the instant application is that D1 does not disclose or teach:

- The switching network is a multi-standard switch that supports routing messages that are based on different message standard protocols.

[51] In the R-PR, the Applicant did not dispute our identification of the differences. However, in the R-FA, the Applicant contended that D1 did not teach “using a switching network to perform both presentment and payment.” We explained in the PR letter (pages 12 to 13) why we disagreed with this argument:

D1 discloses using a switching network for bill presentation (abstract, Fig. 3). More specifically, D1 discloses an ESP system that is specifically designed for bill statement presentations (abstract, col. 4, line 63, to col 5, line 67). With regard to bill payment function, D1 discloses (abstract, col. 4):

The ESP system operates independently or is an enhancement to any suitable electronic bill payment system.

...

Although the present invention may operate stand-alone, in one embodiment of the invention the electronic statement presentment (ESP) system is an enhancement, or is complimentary to any suitable electronic bill payment system. In one specific embodiment, the ESP System is an enhancement to the electronic bill payment system described in U.S. Pat. No. 5,465,206, and in particular may be integrated with VISA’s ePay system to provide full-circle electronic financial transactions for billers and consumers. By introducing



electronic statement presentment to an existing electronic bill payment system, an added dimension enables fully automated bill payment. In addition, any suitable electronic remote banking service provided by a financial institution is also enhanced. By integrating the ESP system of the present invention into an electronic bill payment system, a fully electronic payment system is provided that enables processing controls, transaction completion certainty and item resolution.

Therefore, in our preliminary view, D1 discloses the feature of “using a switching network to perform both presentment and payment” [Emphasis in the original].

- [52] With respect to the additional features of independent claims 9 and 17, D1 discloses (col. 7, lines 34 to 42; col.19, lines 13 to 28):

An electronic statement originates at a biller end point 102 that may be a biller 104, a biller service provider (BSP) 106 or a biller financial institution (BFI) 108. Biller end point 102 is the point at which statements originate and are sent to the ESP system (not shown). **Biller 104 is any business, merchant or organization that produces consumer statements and/or invoices to reflect the services and/or products that the biller provides.**

...

Electronic statements (including invoices) are divided into mandatory and optional sections as defined by the biller. Mandatory sections are automatically presented to the customer, while optional sections are downloaded and presented only at the consumer request. To minimize download time and thereby improve customer acceptance, the mandatory portion of statements may be restricted in size and content.

Exemplary electronic statement 406 includes a mandatory section 420 and two optional sections 422 and 424. Mandatory section 420 includes actual statement or invoice data and any legally required enclosures. The summary section is intended to represent the payment stub that typically comes with a printed invoice, although it may be more detailed. The summary section could include a URL or electronic mail address for customer access to detailed transaction records [Emphases added]

- [53] From the paragraphs above, D1 discloses the feature of presenting bill summary data generated by a biller terminal for presentment at a consumer terminal, wherein complete bill data is accessible by direct communications, such as a URL or an email address, between said consumer terminal and said biller terminal.
- [54] Furthermore, D1 discloses (col. 29, line 11, to col. 30, line 34; claims 11 and 15; Fig. 9B) that “numerous batches of consumer records” originated from different billers are sorted and routed by the switching network to different CSPs, which continued to forward electronic statements to specific consumers. In this case, only portions of batch bill data are selectively routed to consumer terminals based on the identifications of CSPs and

consumer terminals.

[55] Therefore, the two additional features of claims 9 and 17 are disclosed by D1.

*(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?*

### **Independent claims**

[56] In the PR letter (page 13), we provided our rationale regarding why the differences between the features of the independent claims and the state of the art would have been obvious to the skilled person with their CGK:

With respect to the feature of “a multi-standard switch which is configured to communicate using a plurality of different message standard protocols”, we are of the preliminary view that this is CGK. As explained in the CGK section, Electronic data interchange (EDI) translators, which are configured to convert messages that use different message standard protocols, for facilitating business data interchanges online between participants, were widely available and used in switching networks before the claim date of the instant application.

Therefore, it is our preliminary view that a communication system with data routing capability, integrated with a protocol conversion module, with the ability of supporting different message standard protocols for financial data interchange, and connecting participants “regardless of individual hardware platforms or communications protocols” (section 2.7 of *Garguilo et al.*), is part of the CGK. In our view, this communication system falls in the scope of our definition of the “multi-standard switch” or “switching network”.

Consequently, in our preliminary view, for a skilled person equipped with teachings of D1 and CGK, facing the well-known problem of different participants utilizing different message standard protocols to exchange financial data, it would have been obvious to combine the well-known protocol conversion component with the switching network disclosed in D1 to obtain the claimed combination of features of the independent claims of the instant application. Therefore, we are of the preliminary view that the claimed subject-matter of independent claims 1, 9, 17, and 25 would have been obvious to a skilled person.

[57] In the R-PR (pages 1 and 2), the Applicant contended that

In its preliminary decision, the Board relies on a nonpatent literature document to Gaguilo for the proposition that a switching network was known in the art. The Board relates the switching network to a simple router that moves information between parties. In response, Applicant highlights the full features of the disclosed switching network, for example, as described in the application (Page 6, line 12 - Page 7, line 25).

“Switching network 115 is an open, interoperable routing device. It is “open” in that any financial institution or financial institution sponsored third part processor may become a Participant. Furthermore, the switching network is “interoperable” in that the consolidation of presentment and/or payment of bills may be accomplished using a single system. In a preferred embodiment the switching network 115 is an HTTP proxy server that uses a conventional message standard protocol, for example, Open Financial Exchange (OFX), Interactive Financial Exchange (IFX), or preferably a dual standard message environment supporting both OFX and IFX messages. Alternatively, any other type of message standard protocol for EBPP may be used. The system is flexible in that each Participant may use its own system and Participants need not use the same message standard in order to exchange information. For example, the CSP may use an OFX message standard and exchange information with a BSP that employs an IFX message standard.

“Messages generated by Consumer terminal 125 or CSP device 120 are received by the switching network 115 that proxy (e.g., HTTP Protocol) routes them to the destination BSP device 110 or Biller terminal 105. Similarly, the Biller terminal 105 or BSP device 110 response messages are proxy routed back to the CSP device or Consumer terminal 125. The switching network 115 logs the presentment and payment messages as they are routed between the CSP/CPD and BSP/BPP for reporting on a periodic basis, e.g., daily and/or monthly, to the Participants.

“Each time CSP device 120 initiates a transaction request through the switching network 115, the server associated with the switching network verifies the authenticity of the CSP, preferably by validating their certificates, as is known in the art[.] The switching network server validates that the CSP, BSP and Biller names are consistent with the source CSP and the destination BSP. Switching network 115 has an associated memory device 130 in which a directory, preferably a Lightweight Directory Access Protocol (LDAP), of all Participants is stored. The memory device 130 is shown in Figure 1 as separate from the switching network 115 but may alternatively be an integral component thereof.

“The three basic operations of the switching system 100 in accordance with the present invention are presentment, payment, and settlement of bills electronically. Presentment and payment operations may be implemented independent of one another so that the Consumer can access summary bill data without invoking the payment functionality, and vice versa. CSP devices, BSP devices and their associated Biller terminals must be registered Participants to access the switching network 115. Participants are connected to the switching network 115 via communication interface such as digital lines, the Internet, World Wide Web, Local Area Network, Wide Area Network or any other conventional connection or network” [Emphasis in the original].

- [58] As noted in our discussion of the relevant CGK, the Applicant's submissions in the R-PR focused on the use of *Garguilo et al.* This has already been addressed above.
- [59] Regarding features as recited above in the R-PR, as explained in the PR letter (pages 13 and 16) and illustrated in *Garguilo et al.* (sections 2.7, 3.1.1, 3.3.3, and 5.2), the feature of "each Participant may use its own system and Participants need not use the same message standard in order to exchange information", which mirrors the claimed feature of the system facilitating electronic communication between participants "irrespective of which message standard protocol" each of the participants uses, is considered to have been CGK. In an EDI system, it was common to have participants using different versions of X12 or different versions of EDIFACT. As shown in *Garguilo et al.* (section 2.7), EDI VANs, which often incorporated translators with protocol conversion functionality, were used to connect trading partners "regardless of individual hardware platforms or communication protocols".
- [60] Furthermore, as explained above, the switching network taught by D1 supports electronic operations of both bill payment and bill presentment. Therefore, in our view, the identified difference of a switching network being a multi-standard switch that supports routing messages based on different message standard protocols would have been obvious to the skilled person with the knowledge of the switching network used for bill presentation and payment of D1, in view of the CGK.

### **Dependent claims**

- [61] In the PR letter (pages 13 to 14), the Panel explained its rationale why the dependent claims 2 to 8, 10 to 16, 18 to 24, and 26 to 29 would have been obvious to the skilled person:

Claims 2, 10, and 19 recite that bill information is routed between endpoint devices without reformatting. In our preliminary view, this feature would have been obvious to a skilled person considering bill information data may be embedded in well-known message standard protocols, such as OFX and IFX protocols, as plain text data without reformatting.

Claims 3 to 7, 11 to 15, 18, and 24 recite that the switching system may include a variety of endpoint devices that are in electronic communications with other endpoint devices, including consumer payment provider, biller payment provider, payee terminal, consumer service provider, bill service provider, consumer terminal, and biller terminal. Since these are all well-known financial endpoint devices, these devices communicating with other endpoint devices via the switching network would have been obvious to a person skilled in the art.

Claims 8 and 16 recite that the switching system maintains a directory of connected endpoint devices and a device must be registered in the directory in order to access the system. Given that the claimed system transfers financial information and funds, it would have been obvious to restrict access to it. Therefore, we consider this feature a straightforward implementation option and would have been obvious to a skilled person.

Claims 20 to 23, 27, and 28 recite features regarding how bill data is accessed and how payment transactions are processed. Claim 26 recites that the message standard protocols may be OFX and IFX. Claim 29 recites that all presentation and payment communications are logged by the switching system. These features are considered to be CGK or straightforward implementation choices and would have been obvious to a skilled person.

[62] In the R-PR (page 14), the Applicant contended that

Applicant also submits the Board has failed to establish obviousness of claims 8 and 16 in relation to a “directory”. The Board provides no factual basis for its contention that “given that the claimed system transfers financial information and funds, it would have been obvious to restrict access to it” as set forth by the PR at Page 14.

[63] Regarding claims 8 and 16, as we explained in the PR letter, in our view, it would have been obvious to the skilled person to restrict access to the switching network since the data exchanged are sensitive financial data such as bill payment information. In this case, the skilled person would understand that a certain level of access control is required to manage access rights of potential participants of the data exchanges. Maintaining a list including registered users who are allowed to access the network would have been considered an obvious implementation choice. Moreover, as illustrated by *Garguilo et al.* (section 5.2), it is known that many EDI translators only allow access from trusted participants: “[s]ince most EDI translators only accept transactions from recognized trading partners, a user purchasing an EDI product for use in federal procurements must ensure that the translator is capable of accepting transactions from any registered supplier”, which infers that each of the translators maintains a list of trusted participants for access control. Therefore, keeping a list of registered participants for access control is also considered to be CGK.

[64] The Applicant did not dispute our analysis and rationale regarding the obviousness of dependent claims 2 to 7, 10 to 15, 18 to 24, and 26 to 29.

[65] In summary, it is our view that the claims 1 to 29 on file would have been obvious to the skilled person in view of D1, in light of the CGK.

#### Enablement

[66] In the FA (pages 2, 7, and 8), the Examiner indicated that claims 1, 9, 17, and 25 were not

fully supported by the description and the description did not enable the claimed invention. In the R-FA (pages 1 to 3), the Applicant disagreed with the Examiner's positions on both issues and contended that the claims are supported by the description, citing pages 6 and 7 of the description. The Applicant also argued that paragraphs in pages 6 and 9 enabled the invention and "one of ordinary skill would understand from the disclosure how to implement the claims."

[67] As explained in the PR letter (pages 15 to 16), we consider the claims on file to be fully supported and the description does not suffer from enablement issues:

[W]e consider the objections under subsection 27(3) of the *Patent Act* and section 84 (now section 60) of the *Patent Rules* raised in the FA are substantially directed to the one question of whether the specification enables the skilled person to make or use the claimed invention. In our preliminary view, based on the specification as a whole and our identification of the CGK, a multi-standard switch is simply a device or set of devices that support routing of financial data between different endpoint devices that might use different message protocols for data interchanges. We consider that the routing function of the claimed multi-standard switch refers to the well-known generic routing capability of a routing device as the specification does not provide any specific requirements on routing for the claimed switch, or any specific implementation details regarding the construction of this device. Since the design and implementation of the multi-standard switch are considered to be CGK, a skilled person would understand how the invention works and how to implement this multi-standard switch using widely-available hardware and software components, having only the specification and his or her knowledge of the CGK. As explained in *Teva*, para. 292, "[e]very skilled person brings to the reading of a patent his knowledge of the field in which the patent operates. The person of ordinary skill in the art would be expected to bring to his reading of the patent a foundation of common general knowledge that would enable him or her to understand and practise the patent." In this case, we are of the preliminary view that a skilled person would be able to practi[s]e the claimed subject-matter of the instant application based on the specification and the CGK.

Although we consider that concerns over section 60 of the *Patent Rules* as being subsumed within the discussion of the enablement issue, since the lack of support issue is argued by both the Examiner in the FA and the Applicant in the RFA, we briefly discuss it here for completeness. With the explanation of our preliminary view of the enablement issue, in the case of the instant application, it follows that we consider that the specification fully supports the feature of a multi-standard switch that is configured to facilitate communications between endpoint devices that use different message standard protocols, otherwise the skilled person would have not been able to practise the claimed invention based on the specification and CGK. We note that the specification at page 6 recites a routing device that is configured to facilitate communications between endpoint devices that use different message standard protocols. Based on our estimation of the skilled person's understanding of the term "multi-standard switch" above, a skilled person would understand the expression "irrespective of which message standard protocol each of ... use" simply means that the multi-standard

switch is capable of supporting communications between endpoint devices regardless which supported message standard protocol(s) they utilize.

[68] The Applicant did not dispute this analysis in the R-PR. Therefore, it is our view that the specification complies with both the requirements of subsection 27(3) of the *Patent Act* and section 60 of the *Patent Rules*.

**RECOMMENDATION OF THE BOARD**

[69] In view of the above, the Panel recommends that the application be refused on the grounds that the claims on file would have been obvious and are therefore non-compliant with paragraph 28.3(b) of the *Patent Act*.

Liang Ji

Stephen MacNeil

Ed MacLaurin

Member

Member

Member



**DECISION OF THE COMMISSIONER**

[70] I concur with the findings of the Board and its recommendation that the application should be refused because the claims on file would have been obvious and thus do not comply with paragraph 28.3(b) of the *Patent Act*.

[71] Therefore, in accordance with section 40 of the *Patent Act*, I refuse to grant a patent for this application. Under section 41 of the *Patent Act*, the Applicant has six months to appeal my decision to the Federal Court of Canada.

Johanne Bélisle  
Commissioner of Patents

Dated at Gatineau, Quebec,  
This 29th day of April 2020