

**United States Court of Appeals
for the Federal Circuit**

CXLOYALTY, INC.,
Appellant

v.

MARITZ HOLDINGS INC.,
Cross-Appellant

2020-1307, 2020-1309

Appeals from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. CBM2018-00037.

Decided: February 8, 2021

STEVEN M. LIEBERMAN, Rothwell, Figg, Ernst & Manbeck, PC, Washington, DC, argued for appellant. Also represented by DAVID LAWSON ALLEN, JENNY COLGATE.

ROBERT M. EVANS, JR., Lewis Rice LLC, St. Louis, MO, argued for cross-appellant. Also represented by MICHAEL J. HARTLEY.

Before PROST, *Chief Judge*, LOURIE and HUGHES, *Circuit Judges*.

PROST, *Chief Judge*.

cxLoyalty, Inc. (“cxLoyalty”) petitioned for a covered business method (“CBM”) review of claims 1–15 of U.S. Patent No. 7,134,087 (“the ’087 patent”), which is owned by Maritz Holdings Inc. (“Maritz”). The Patent Trial and Appeal Board (“Board”) instituted CBM review and concluded that original claims 1–15 are ineligible for patenting under 35 U.S.C. § 101 but that proposed substitute claims 16–23 are patent eligible. *See cxLoyalty, Inc. v. Maritz Holdings Inc.*, No. CBM2018-00037, Paper 36, 2019 Pat. App. LEXIS 13178 (P.T.A.B. Dec. 19, 2019) (“*Decision*”). cxLoyalty appealed the Board’s ruling as to the substitute claims, and Maritz cross-appealed both the Board’s determination that the ’087 patent is eligible for CBM review and the Board’s ruling as to the original claims.

We do not have authority to entertain Maritz’s challenge to the CBM eligibility of the ’087 patent. *SIPCO, LLC v. Emerson Elec. Co.*, 980 F.3d 865, 867 (Fed. Cir. 2020). As to the merits, we conclude that both the original and substitute claims are directed to patent-ineligible subject matter under § 101. We therefore dismiss Maritz’s CBM eligibility challenge, affirm the Board’s determination as to the original claims, and reverse the Board’s determination as to the proposed substitute claims.

BACKGROUND

I

Customer loyalty programs “issue points to customers . . . as a reward for certain activities” and “allow[] the customer[s] to redeem the points” for various goods and services. ’087 patent col. 1 ll. 16–23. The purpose of such programs is to “create a loyalty or affinity with the customer and encourage the customer to continue a desired behavior.” *Id.* at col. 1 ll. 19–21.

Before the invention of the ’087 patent, loyalty programs frequently “provide[d] the customer with a limited

listing of rewards from selected redemption vendors in the form of merchandise, certificates, or other products or services . . . and the number of points needed to obtain one of the rewards from the list.” *Id.* at col. 1 ll. 24–29. The customer could then select a reward and relay that selection to the loyalty program. *Id.* at col. 1 ll. 31–34. In response, “[t]he loyalty program [would] obtain[] the product or service on behalf of the customer from one of the limited number of selective redemption vendors and provide[] it to the customer.” *Id.* at col. 1 ll. 34–37.

The ’087 patent explains:

Some rewards are of a nature that human intervention is needed to redeem/fulfill [them]. For example, if the customer selects a roundtrip airline ticket, the loyalty program on behalf of the customer or the customer directly would purchase the ticket through a selected travel agent or a selected airline employee and provide the ticket (or have it sent) to the customer.

Id. at col. 1 ll. 37–43.

The invention of the ’087 patent “eliminate[s] the human intervention” needed “to redeem such rewards.” *Id.* at col. 1 ll. 49–50. The ’087 patent relates to a system and method for permitting a customer of a loyalty program to redeem loyalty points for rewards offered by vendors without the need for human intervention. More specifically, a graphical user interface (“GUI”) provides the interface for the participant (i.e., a customer) to communicate with a web-based vendor system, such as an airline-reservation system. *Id.* at col. 2 ll. 14–26, col. 4 ll. 11–29. An application programming interface (“API”) interfaces with the GUI and the vendor system to facilitate information transfer between them. *Id.* at col. 2 ll. 11–16.

The API receives vendor-related information from the vendor system, such as “a listing of the [products] available

and the price of each.” *Id.* at col. 6 ll. 34–38; *id.* at claim 1. The vendor-related information is then “provided via the API to the GUI which . . . then provide[s] the vendor[-related] information to the participant.” *Id.* at col. 6 ll. 38–41.

The GUI receives participant-related information from the participant, such as the participant’s name, address, and selection of goods or services to purchase in exchange for points. *Id.* at col. 2 ll. 15–18, col. 6 ll. 18–26. After receiving this information, the GUI interfaces with the loyalty program and the participant’s point account to ensure that the participant has enough points to make the desired purchase. *Id.* at col. 4 ll. 29–33. If so, the GUI purchases the desired item with a program account, such as a cash account or shadow credit card, that is connected to the loyalty program. *Id.* at col. 4 ll. 33–41. The GUI completes this transaction by providing the participant-related information (including the purchase request) and the program account information to the API, which provides that information to the vendor system to make the purchase. *Id.* at col. 4 ll. 47–50, col. 5 ll. 55–58. The specification explains that the API’s function of “transmitting information to the vendor system” is its “standard function.” *Id.* at col. 7 ll. 9–14.

The system may complete the purchase with a “shadow” credit card—a credit card that is “hidden or ‘shadowed’ from the participant so that the participant is not aware that the transaction is actually being transacted using the shadow credit card or other program account.” *Id.* at col. 4 ll. 42–47. Instead, from the participant’s perspective, the “transaction with the vendor system [occurred] based in whole or in part on the points in the participant’s point account.” *Id.* at col. 3 ll. 6–9. At the same time, from the vendor system’s perspective, the transaction occurred “with the participant based on the program account.” *Id.* at col. 3 ll. 9–12.

After completing the transaction, the GUI advises the loyalty program when the transaction has been completed “so that the loyalty program can deduct the appropriate points from the participant’s point account.” *Id.* at col. 4 ll. 50–53.

Claim 1 is representative of the original claims and provides:

1. A computerized system for use by a participant of a program which awards points to the participant, wherein the awarded points are maintained in a point account for the participant, said system for permitting the participant to transact a purchase using the awarded points with a vendor system which transacts purchases in currency, said system comprising a processor including instructions for defining:

an application programming interface (API) for interfacing with the vendor system;

a program account hidden from the participant connected to the program for use in currency transactions;

a graphical user interface (GUI) for providing an interface between the participant and the API and for communicating with the program;

wherein said GUI includes instructions for receiving participant-related information from the participant and providing the received participant-related information to the API;

wherein said GUI includes instructions for receiving information regarding the program account hidden from the participant and for providing the received program account information to the API;

wherein said API is adapted to receive the participant-related information and the program account

information from the GUI and adapted to provide the received participant-related information and the received program account information to the vendor system;

wherein said API is adapted to receive vendor-related information from the vendor system and adapted to provide the received vendor-related information to the GUI; and

wherein said GUI includes [i]nstructions for receiving vendor-related information from the API and for providing the received vendor-related information to the participant;

such that from the perspective of the participant, the participant uses the GUI to conduct a purchase transaction with the vendor system based in whole or in part on the points in the participant's point account; and

such that from the perspective of the vendor system, the vendor system conducts the purchase transaction with the participant as a currency transaction based on the program's program account hidden from the participant whereby the participant is not aware that the purchase transaction with the vendor system is being transacted using program account.

'087 patent claim 1.

Substitute claims 16 and 22 are representative of the substitute claims. Compared with claim 1, substitute claim 16 adds in relevant part that the GUI includes instructions for converting the vendor-related information from the format of the vendor system into a format of the GUI. Claim 16 provides (with underlines indicating language added to original claim 1 and brackets indicating language removed):

16 (replaces claim 1): A computerized system for use by [[a]] participants of a program which awards points to the participants, wherein the awarded points for each participant are maintained in a point account for the respective participant, said system for permitting [[the]] each participant to transact a purchase using the respective awarded points with a vendor system which transacts purchases in currency, said system comprising a processor including instructions for defining:

an application programming interface (API) for interfacing with the vendor system;

a program account hidden from the participants connected to the program for use in currency transactions;

a program database storing information about the program including a listing of the point accounts of the participants;

a graphical user interface (GUI) for providing an interface between the participants and the API and for communicating with the program, wherein the GUI is configured so that the participants can connect to the GUI using an internet connection;

wherein said GUI includes instructions for receiving participant-related information from [[the]] each participant via the internet connection and providing the received participant-related information to the API;

wherein said GUI includes instructions for receiving information regarding the program account hidden from the participants and for providing the received program account information to the API;

wherein said API is adapted to receive the participant-related information and the program account

information from the GUI and adapted to provide the received participant-related information and the received program account information to the vendor system;

wherein said API is adapted to receive vendor-related information from the vendor system in a format of the vendor system and adapted to provide the received vendor-related information to the GUI; [[and]]

wherein said GUI includes instructions for receiving vendor-related information from the API, for converting the received vendor-related information from the format of the vendor system into a format of the GUI, and for providing the received vendor-related information to the participants in the format of the GUI via the internet connection;

wherein the computerized system is configured to use the program account to complete purchase transactions with the vendor system based on participant-related information received from the participants via the internet connection including purchase requests based on points; and

wherein in response to each completed purchase transaction, the computerized system is configured to store an indication of the completed purchase transaction in the program database and display an order message indicating the completion of the purchase transaction to the respective participant;

such that from the perspective of the participants, the participants use the GUI to conduct the purchase transactions with the vendor system based in whole or in part on the points in each participant's point account; and

such that from the perspective of the vendor system, the vendor system conducts the purchase

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transactions with the participants as [[a]] currency transactions based on the program's program account hidden from the participants whereby the participants [[is]] are not aware that the purchase transactions with the vendor system [[is]] are being transacted using the program account.

J.A. 413–15.

Compared with claim 1, substitute claim 22 adds in relevant part that the GUI communicates with multiple APIs having corresponding vendor systems, allowing participants to use the GUI to make points-based purchases directly from multiple third-party vendor systems. Claim 22 provides (with underlines indicating language added to original claim 13 and brackets indicating language removed):

22 (replaces claim 13): A computerized system for permitting a participant to transact a purchase using awarded points with a vendor system which transacts purchases in currency, said system comprising a processor including instructions for defining:

a loyalty program which awards points to a participant, wherein the awarded points are maintained in a point account for the participant;

an application programming interface (API) for interfacing with the vendor system;

a program account hidden from the participant connected to the program for use in currency transactions;

a program database storing information about the loyalty program including a listing of point accounts of a plurality of users of the loyalty program including the participant;

a graphical user interface (GUI) for providing an interface between the participant and the API and for communicating with the program, wherein the GUI is configured so that the participant can connect to the GUI using an internet connection;

wherein said GUI includes instructions for:

receiving participant-related information from the participant via the internet connection and providing the received participant-related information to the API;

receiving a purchase request from the participant via the internet connection to conduct a purchase with the vendor system based on the points in the participant's point account;

receiving information regarding the program account hidden from the participant from the loyalty program;

converting the received purchase request based on the points into a corresponding purchase request based on the program account information if the point account has sufficient points to cover the purchase; [[and]]

providing the corresponding purchase request based on the program account information to the API wherein the API is adapted to receive the corresponding purchase request from the GUI and provide the received corresponding purchase request to the vendor system as a purchase request based on the program account information;

based on the purchase request, completing a purchase transaction with the vendor system on behalf of the participant using the program account;

receiving a vendor purchase confirmation from the vendor system, the vendor purchase confirmation

comprising a record of the order being successfully placed based on the program account information;

and

in response to receiving the vendor purchase confirmation:

storing an indication of the completed purchase transaction in the program database;

and displaying an order message to the participant indicating the completion of the purchase transaction;

wherein said API is adapted to receive the participant-related information from the GUI and to provide the received participant-related information to the vendor system;

wherein said API is adapted to receive vendor-related information from the vendor system and provide the received vendor-related information to the GUI; and

wherein said GUI includes instructions for receiving vendor-related information from the API and providing the received vendor-related information to the participant via the internet connection;

such that from the perspective of the participant, the participant uses the GUI to conduct a purchase transaction with the vendor system based in whole or in part on the points in the participant's point account; and

such that from the perspective of the vendor system, the vendor system conducts the purchase transaction with the participant based on the loyalty program's program account hidden from the participant whereby the participant is not aware that the purchase transaction with the vendor system is being transacted using the program account;

wherein the API comprises an airline reservation system API and the vendor system comprises an airline reservation system; and

wherein the processor further includes instructions for providing another vendor system API for interfacing with another vendor system of a vendor that sells other goods or services, the other vendor system API being adapted to:

receive the participant-related information from the GUI and provide the received participant-related information to said other vendor system; and

receive vendor-related information from said other vendor system and provide the received vendor-related information from said other vendor system to the GUI.

J.A. 425–28.

II

The Board concluded that the '087 patent is eligible for CBM review, that the original claims are patent ineligible under § 101, and that the substitute claims are patent eligible.

As to the original claims, the Board determined that claim 1 was illustrative. *Decision*, at 7. The Board concluded:

Petitioner has shown persuasively that, by virtue of the limitations reproduced above, claim 1, as a whole, recites facilitating, or brokering, a commercial transaction (i.e., the sale and purchase of goods and services) between a purchaser using a first form of value (i.e., a rewards program participant using points in whole or in part) and a seller transacting in a second form of value (i.e., a vendor system which transacts purchases in currency).

Decision, at 28. The Board explained that such activity “amount[s] to a fundamental economic practice long prevalent in commerce” and, therefore, claim 1 was directed to an abstract idea. *Id.*

The Board also determined that “Petitioner has shown persuasively that claim 1 does not recite any element or combination of elements that would transform the claim into a patent-eligible application of the alleged abstract idea.” *Id.* at 47. Rather, “[c]laim 1 merely recites generic and conventional computer components . . . and functionality for carrying out” the abstract idea. *Id.*; *see also id.* at 49.

Maritz argued that claim 1 was directed to more than an abstract idea because it permitted a participant to redeem points for rewards “without knowing that the actual transaction is a currency transaction at less than the perceived price.” *Id.* at 32 (emphasis omitted). The Board rejected this argument for two reasons: first because claim 1 “does not include any requirement that the *value* of the transaction be concealed from the participant,” and second because claim 1 is directed to the above-identified abstract idea regardless. *Id.* at 34–37.

The Board concluded that the substitute claims were directed to the same abstract idea as the original claims. *Id.* at 81–82, 94–95. Unlike for the original claims, however, the Board concluded that the substitute claims contained an inventive concept. *Id.* at 83, 89, 95, 97. The Board focused heavily on the fact that although cxLoyalty opposed the motion to amend, it “did not submit any [new] testimony . . . or other . . . evidence” in support of its opposition to the motion, relying instead on the same evidence it submitted with respect to the original claims. *Id.* at 84. Conversely, Maritz did submit new expert testimony specifically supporting the motion to amend. *Id.* at 88–89; *see also id.* at 97; J.A. 1753–67 (Weiner Decl. in Support of

Patent Owner’s Mot. to Amend).¹ The Board concluded, based primarily on Maritz’s expert testimony, that cxLoyalty had “not made a sufficient showing that the [substitute claims] lack[] an inventive concept.” *Decision*, at 88–91, 95–97.

cxLoyalty appealed and Maritz cross-appealed. We have jurisdiction to review the Board’s final written decision under 28 U.S.C. § 1295(a)(4)(A) and 35 U.S.C. § 329.

DISCUSSION

On appeal, cxLoyalty challenges the Board’s determination that substitute claims 16–23 are patent eligible under § 101. On cross-appeal, Maritz challenges the Board’s determination that the ’087 patent is eligible for CBM review and the Board’s conclusion that original claims 1–15 are patent ineligible under § 101. We address Maritz’s cross-appeal first.

I

In its briefing, Maritz argued that “[c]xLoyalty did not satisfy its burden of establishing that the ’087 patent is eligible for CBM review.” Maritz’s Op. Br. 24. After the close of briefing but before oral argument, this court decided *SIPCO, LLC v. Emerson Electric Co.*, in which we

¹ Throughout its Final Written Decision, the Board repeatedly referred to the United States Patent and Trademark Office’s 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019). We note that this guidance “is not, itself, the law of patent eligibility, does not carry the force of law, and is not binding on our patent eligibility analysis.” *In re Rudy*, 956 F.3d 1379, 1382 (Fed. Cir. 2020). And to the extent the guidance “contradicts or does not fully accord with our caselaw, it is our caselaw, and the Supreme Court precedent it is based upon, that must control.” *Id.* at 1383.

explained that “[t]he Supreme Court’s decision in *Thryv* . . . makes clear that the threshold determination” that a “patent qualifies for CBM review is a decision that is non-appealable under 35 U.S.C. § 324(e).” 980 F.3d 865, 867 (Fed. Cir. 2020). We concluded that we were therefore “precluded from reviewing” this “challenge to that threshold determination.” *Id.* As Maritz acknowledged during oral argument,² *SIPCO* forecloses Maritz’s CBM eligibility challenge.

II

Now we turn to the merits of the Board’s § 101 decision. Patent eligibility under § 101 is “ultimately an issue of law we review de novo,” but the inquiry “may contain underlying issues of fact.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018). The Supreme Court has established a two-step framework for evaluating patent eligibility. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70–73 (2012). First, we ascertain whether a patent claim is directed to an unpatentable law of nature, natural phenomenon, or abstract idea. *Alice*, 573 U.S. at 217. If so, we next determine whether the claim nonetheless includes an “inventive concept” sufficient to “transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 72, 78).

A

We conclude that the original claims are ineligible for patenting under § 101.

As to step one, we agree with the Board that representative claim 1 is directed to “facilitating, or brokering, a

² Oral Arg. at 10:45–11:20, 12:04–14, No. 2020-1307, <http://www.cafc.uscourts.gov/oral-argument-recordings>.

commercial transaction (i.e., the sale and purchase of goods and services) between a purchaser using a first form of value (i.e., a rewards program participant using points in whole or in part) and a seller transacting in a second form of value (i.e., a vendor system which transacts purchases in currency).” *Decision*, at 28. The system of claim 1 facilitates such a transaction via transfers of information between the participant, vendor system, and the intermediary (the GUI and API). Humans have long intermediated these very transactions by collecting and relaying the very same information. *See, e.g.*, ’087 patent, col. 1 ll. 34–37; Maritz’s Op. Br. 5–7; *Decision*, at 29–31; J.A. 921, 1453–54 (Knowles Decl.), 1654–56 (Weiner Decl.). As the Board noted, “[t]he GUI in claim 1 takes the place of the human acting as an intermediary, communicating with both the participant and the vendor (via the API) to complete the transaction.” *Decision*, at 30–31. Because representative claim 1 is directed to transfers of information relating to a longstanding commercial practice, the claim is directed to an abstract idea. *See, e.g.*, *Alice*, 573 U.S. at 219–20; *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *see also Elec. Comm’n Techs., LLC v. ShoppersChoice.com, LLC*, 958 F.3d 1178, 1181–82 (Fed. Cir. 2020).

The claims also fail at step two. The claims amount to nothing more than applying the above-identified abstract idea using techniques that are, whether considered individually or as an ordered combination, well-understood, routine, and conventional. The claims apply the abstract idea on a computer by replacing the human intermediary with a GUI and API, but as the Board concluded, representative claim 1 “merely recites generic and conventional computer components (i.e., ‘processor,’ ‘GUI,’ and ‘API’) and functionality for carrying out” the abstract idea. *Decision*, at 47. And the “communication of information by GUIs and APIs” was “well-known in the prior art.” *Id.* at 49; *see also id.* at 47–51. Accordingly, the claims do not survive step

two. *See, e.g., Alice*, 573 U.S. at 218–25 (“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea of intermediated settlement on a generic computer. . . . They do not [because the claimed process steps are] well-understood, routine, conventional activit[ies].” (third alteration in original)); *Mayo*, 566 U.S. at 72–73, 82 (explaining that “simply appending conventional steps, specified at a high level of generality, to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable”); *Cellspin Soft, Inc. v. Fitbit, Inc.*, 927 F.3d 1306, 1316 (Fed. Cir. 2019) (“An inventive concept reflects something more than the application of an abstract idea using well-understood, routine, and conventional activities previously known to the industry.” (internal quotation marks omitted)).

Maritz argues that claim 1 is eligible for patenting because the claimed invention “conceals the nature of the transaction between the participant and the vendor system such that the participant can redeem points for goods/services without knowing that the actual transaction is a currency transaction at less than the perceived price.” Maritz’s Op. Br. 32. We disagree.

As an initial matter, and as the Board noted, the claims do not require that the actual dollar amount of the transaction be hidden from the participant. *See Decision*, at 34. In any event, the claims would be ineligible even if they did include such a requirement because the requirement would also constitute part of the abstract idea. Indeed, loyalty program intermediaries have long brokered loyalty program transactions in a manner where, from the participant’s perspective, the actual price paid by the loyalty program is withheld from the participant. *See, e.g., Maritz’s Op. Br. 5–7; J.A. 1653–56 (Weiner Decl.)*.

Maritz also argues that the claims are eligible under § 101 because they recite novel and nonobvious subject

matter. *See, e.g.*, Maritz’s Op. Br. 21, 40. However, even if “[w]e may assume that the techniques claimed are ‘[g]roundbreaking, innovative, or even brilliant,’ . . . that is not enough for eligibility.” *See, e.g., SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 591 (2013)); *see also id.* (concluding that it is not “enough for subject-matter eligibility that claimed techniques be novel and nonobvious in light of prior art”).

Maritz further contends that the claims are patent eligible at one or both steps because they recite a “novel combination of technical elements” that provides “technological solutions to [a] technological problem within the loyalty awards industry.” Maritz’s Op. Br. 45–46, 61–64; *see, e.g., Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300–01 (Fed. Cir. 2016) (holding claim eligible at step two because it “entails an unconventional technological solution . . . to a technological problem,” and the solution “requires that arguably generic components . . . operate in an unconventional manner to achieve an improvement in computer functionality”); *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350–51 (Fed. Cir. 2016) (holding claims eligible at step two because the claims recited a “technical improvement over prior art ways of filtering . . . content” that “improve[s] the performance of the computer system itself”). Maritz points to expert testimony in support. J.A. 1634–90 (Weiner Decl.).

For the reasons provided above, the claims are directed to an abstract idea, and they implement the abstract idea using conventional techniques; the claims are not directed to a technological solution to a technological problem. Although Maritz points to expert testimony, that testimony merely labels, in conclusory fashion, the invention as a technological solution to a technological problem. We do not accord weight to conclusory expert testimony. *See TQ Delta, LLC v. CISCO Sys., Inc.*, 942 F.3d 1352, 1359 n.5, 1360 (Fed. Cir. 2019).

To the extent Maritz identifies what it contends constitutes a technological problem, it appears to be “the problem of connecting the loyalty awards system with those of third-party vendors while keeping the overall nature of the transaction hidden.” Maritz’s Op. Br. 45. But as we have already explained, the claims do not recite a solution to that problem. Even if the claims did, that is not a technological problem requiring a solution that improves the performance of the computer system itself. Indeed, Maritz contends that the claimed solution is the hidden program account that conceals the nature of the transaction between the participant and the vendor system. *E.g., Id.* at 32. But Maritz does not contend that the claimed invention improves the use of computers as a tool by reciting a new technological way for computers to conceal such information. Rather, the claims solve this purported problem by applying an abstract idea using conventional techniques specified in functional terms and at a high degree of generality.

Furthermore, the claims provide no useful guidance as to how this purported function is achieved and thus cannot be directed to a technological solution. *See, e.g., Univ. of Fla. Res. Found., Inc. v. Gen. Elec. Co.*, 916 F.3d 1363, 1368–69 (Fed. Cir. 2019) (holding claims relating to format conversion ineligible where the “drivers [were] described in purely *functional* terms” and the claims did not “explain[] *how* the drivers do the conversion that [the patent owner] points to”).

For these reasons, we conclude that the original claims are ineligible under § 101.

B

We also conclude that the substitute claims are also ineligible under § 101. We discuss representative claims 16 and 22 in turn.

Claim 16 is ineligible under § 101 for the same reasons as claim 1. Maritz attempts to distinguish claim 16 at both steps one and two on the basis of its added requirement that the GUI “is able to convert vendor-related information into information formatted for the GUI, which GUI-formatted information may then be provided to the claimed participants.”³ Maritz’s Op. Br. 44.

Maritz argues that the added limitation constitutes a technological solution to a technological problem. However, Maritz does not contend that the claimed invention improves the use of computers as a tool by reciting a new way for computers to conduct format conversion. Nor do the claims provide any guidance as to how this purported function is achieved. Thus, claim 16 does not claim a patent-eligible technological solution to a technological problem. *See, e.g., Univ. of Fla.*, 916 F.3d at 1368–69.

Maritz also argues that claim 16 is patent eligible because it recites unconventional subject matter. To that end, Maritz relies on expert testimony providing:

Vendor-specific formats were designed to communicate and transact fundamentally in currency price of the goods or services available for purchase. They lacked the capability to communicate from a reward program participant any special arrangement that might exist between the vendor and the reward program in terms of the price the reward program would ultimately pay on the program account. Furthermore, vendor-specific formats lacked any indication of an association with

³ Although we focus on this added limitation because the parties focused on this limitation in their briefing, we note that we have thoroughly considered the entirety of claim 16 in reaching our conclusion.

the loyalty program. Thus, providing vendor information to a participant in the vendor-specific format would confuse participants about whether they were shopping from the vendor based on the points in their program account, as intended. Additionally, many vendor-specific formats were quite technical and therefore not suitable for unsophisticated participants and there were significant differences between vendor-specific formats. By using a GUI associated with the loyalty program, in communication with an API, to convert vendor information from a vendor-specific format to the format of the GUI, the inventions described in the '087 patent could, for the first time, remedy these concerns and provide an e-commerce platform that participants use to purchase goods and/or services directly from third-party vendor systems using points in their point accounts. The uniquely programmed combination of an API and GUI . . . was not well-understood, routine, or conventional in the field of reward programs.”

J.A. 1762–63; *see also Decision*, at 88; Maritz’s Op. Br. 33, 40–41; J.A. 1634–90 (Weiner Decl.), 1753–67 (Weiner Decl. in Support of Patent Owner’s Mot. to Amend).

Although this expert testimony invokes the words “well-understood, routine, or conventional,” the type of unconventionality described by Maritz’s expert does not spare the claims. To be sure, a patent claim may be eligible under § 101 if it, for example, “reflects something more than the application of an abstract idea using well-understood, routine, and conventional activities.” *Cellspin*, 927 F.3d at 1315–16 (internal quotation marks omitted). But the expert testimony relied upon by Maritz does not establish that. At most, the testimony describes the claimed subject matter as not conventional only in the sense that the subject matter as a whole was novel. Indeed, novel subject matter is necessarily not well-understood, routine, or

conventional. But, as explained previously, our cases are clear that a patent claim is not eligible under § 101 merely because it recites novel subject matter. *See, e.g., SAP*, 898 F.3d at 1163.

Maritz also analogizes the claims here to those in *CardioNet, LLC v. InfoBionic, Inc.*, 955 F.3d 1358, 1374–75 (Fed. Cir. 2020) on the basis that “both pass [step one] by reciting claim limitations that are more than merely automating a prior art process using a computer.” Maritz’s Op. Br. 47. But Maritz’s reliance on *CardioNet* is misplaced.

The claims in *CardioNet* related to a cardiac monitoring device that “detects beat-to-beat timing of cardiac activity, detects premature ventricular beats, and determines the relevance of the beat-to-beat timing to atrial fibrillation or atrial flutter, taking into account the variability in the beat-to-beat timing caused by premature ventricular beats identified by the device’s ventricular beat detector.” 955 F.3d at 1368. The court rejected the argument that the claims were directed to automating basic diagnostic processes that doctors had long used, explaining that “[n]othing in the record in this case suggests that the claims merely computerize pre-existing techniques for diagnosing atrial fibrillation and atrial flutter.” *Id.* at 1370. In contrast, here the record demonstrates that the claims are directed to the application of longstanding commercial practices using well-understood, routine, and conventional activities. Accordingly, Maritz’s reliance on *CardioNet* is not compelling.

Maritz also attempts to liken its claims to those in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014), but Maritz’s reliance on *DDR Holdings* is likewise unpersuasive. The claims in *DDR Holdings* did not relate to a longstanding commercial practice but rather to a business challenge particular to the internet, and the claims did not merely employ conventional techniques to apply an abstract idea but rather involved the use of a computer

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network operating outside its normal and expected manner. *Id.* at 1257–59. For the reasons discussed previously, the same cannot be said about the challenged claims here.

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Claim 22 is ineligible under § 101 for the same reasons as claim 1. Maritz attempts to differentiate claim 22 from claim 1 at both steps one and two on the basis that claim 22 “provides the ability for a participant to use a single loyalty program GUI to make points-based purchases directly from multiple third-party vendor systems via multiple APIs.”⁴ Maritz’s Op. Br. 44. But this additional limitation constitutes part of the abstract idea: loyalty programs had long permitted participants to make points-based purchases from multiple third-party vendors. *See, e.g.*, ’087 patent col. 1 ll. 24–29. And, like claim 1, claim 22 implements the abstract idea using wholly conventional techniques specified at a high degree of generality. Further, like claim 16, although claim 22 might recite novel subject matter, that fact is insufficient to confer eligibility. *See SAP*, 898 F.3d at 1163. Therefore, we conclude that claim 22 does not recite patent-eligible subject matter. *See, e.g., Alice*, 573 U.S. at 218–25; *Mayo*, 566 U.S. at 72–73, 82; *Cellspin*, 927 F.3d at 1315–16.

CONCLUSION

We have considered Maritz’s remaining arguments but find them unpersuasive. For the foregoing reasons, we affirm-in-part, reverse-in-part, and dismiss-in-part.

AFFIRMED-IN-PART, REVERSED-IN-PART, AND DISMISSED-IN-PART

⁴ Although we focus on this added limitation because the parties focused on this limitation in their briefing, we note that we have thoroughly considered the entirety of claim 22 in reaching our conclusion.

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COSTS

Costs to cxLoyalty.