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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO. Includes application details for 14/788,081 and 75564, 7590, 03/18/2019, listing inventor Jiaming Li and attorney DANIEL M. FITZGERALD.

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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**DETAILED ACTION**

***Notice of Pre-AIA or AIA Status***

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Applicant filed a response dated 11/20/2018 in which claims 1, 17-19, and 21 have been amended, claims 3-4, 7-8, and 20 have been canceled and new claim 22 has been added. Thus, the claims 1-2, 5-6, 9-19, and 21-22 are pending in the application.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/20/2018 has been entered.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-2, 5-6, 9-19, and 21-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to an abstract idea without significantly more.

Examiner has identified claim 1 as the claim that represents the claimed invention presented in independent claims 1 and 17-18.

Claim 1 is directed to a method which is one of the statutory categories of invention (*Step 1: YES*).

The claim 1 recites the abstract idea of conducting a transaction and is illustrated by a series of steps. The claim 1 recites the limitations of broadcasting information identifying the merchant while the merchant and customer are both located at a physical merchant location to cause the broadcast information to be displayed; receiving a connection request to initiate a connection between the merchant and the customer; in response to the received connection request, exchanging encryption keys between the merchant and the customer to establish a secure wireless channel between the merchant and the customer; receiving, over the secure wireless channel, at the merchant, a check-in request from the customer, the check-in request including information identifying the customer; prompting the merchant to accept the check-in request by displaying a message; accepting at the merchant, the check-in request based on an input made by the merchant in response to the displayed message; generating, as a result of acceptance of the check-in request, cart information of the customer at the merchant, the cart information generated based on data inputted by the merchant, the cart information representing details of items being purchased; transmitting, by the merchant, the cart information to the customer to cause the cart information to be displayed prior to initiating a payment process for the items and while the customer is located at the physical merchant location, and to cause the cart information to be synchronized in real-time between the merchant and the customer while the customer is present at the physical merchant location; determining, via the secure wireless channel, at least one payment option for checking out the items corresponding to the cart information; and processing, a payment associated with the cart information based on a selected payment option out of the at least one payment option. These limitations may correspond to Certain Methods of Organizing Human Activity (commercial or legal interactions). The device limitations do not necessarily restrict the claim from reciting an abstract idea (*Step 2A: YES*). Thus, the claim 1 is directed to an abstract idea.

This judicial exception is not integrated into a practical application because the additional limitations of merchant device, customer device, and a POS result in no more than simply applying the

abstract idea using generic computer elements. The additional elements of a computing device is recited at a high level of generality and under their broadest reasonable interpretation comprises a generic computing device. The presence of a generic computing device does nothing more than to implement the claimed invention (MPEP 2106.05(g)). The limitations such as exchanging encryption keys in order to establish a secure wireless channel is simply a field of use limitations (MPEP 2106.05(h)). Therefore, the recitations of additional elements do not meaningfully apply the abstract idea and hence do not integrate the abstract idea into a practical application. Thus, the claim 1 is directed to an abstract idea (*Step 2A-Prong 2: NO*).

The claim 1 does not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements of a computing device is recited at a high level of generality in that it results in no more than simply applying the abstract idea using generic computer elements. The limitations such as exchanging encryption keys in order to establish a secure wireless channel is simply a field of use limitations (MPEP 2106.05(h)). The additional elements when considered separately and as an ordered combination do not amount to add significantly more as these limitations provide nothing more than simply applying the exception in a generic computer environment (*Step 2B: NO*). Thus, the claim 1 is not patent eligible.

Similar arguments can be extended to other independent claims 17-18 and hence the claims 17-18 are rejected on similar grounds as claim 1.

Dependent claims 2, 5-6, 9-16, 19, and 21-22 further define the abstract idea that is present in their respective independent claims 1 and 18 and thus correspond to Certain Methods of Organizing Human Activity and hence are abstract in nature for the reasons presented above. Dependent claims do not include any additional elements that integrate the abstract idea into a practical application or are sufficient to amount to significantly more than the judicial exception when considered both individually

and as an ordered combination. Therefore, the claims 2, 5-6, 9-16, 19, and 21-22 are directed to an abstract idea. Thus, the claims 1-2, 5-6, 9-19, and 21-22 are not patent-eligible.

### ***Response to Arguments***

Applicant's arguments filed dated 11/20/2018 have been fully considered but they are not persuasive due to the following reasons:

With respect to the rejection of claims 1-2, 5, 6, 9-19, 21, and 22 under 35 U.S.C. 101, Applicant states that the claims recite an unconventional computing architecture-namely, an unconventional and non-generic method of establishing secure communications between a merchant device and a customer device that are both located at a physical merchant location. This unconventional method provides technical improvements, including (i) enabling a customer to review items in real-time during a check-out process, thereby reducing subsequent network activity and (ii) leveraging a secure communication channel previously-established between the customer device and the merchant device to process the customer's payment rather than having to reestablish a secure connection for the payment. Applicant also cites various cases, e.g. *McRO* to support that the claimed invention improves the relevant technology.

Examiner respectfully disagrees and notes that the claim simply makes use of technology that provides secure communication between the merchant device and the customer device. For example, the claim simply makes use of existing encryption techniques in establishing a secure communication channel between the merchant device and the customer device. There is no computer functionality or technology/technical improvement as a result of the claimed process. In other words, the claim simply applies the abstract idea of conducting a transaction by using secure communication channel as a tool to securely conduct a transaction between the merchant device and a customer device. This does not amount to integrating the abstract idea into a practical application under *Step 2A-Prong 2* or provide significantly more under *Step 2B*. Thus, these arguments are not persuasive.

With respect to Applicant's arguments regarding *buySAFE*, *Inventor Holdings* and *Enfish* regarding "oversimplification" or "untethered from the language of the claims, Examiner notes that these arguments are moot in view of the 35 U.S.C. 101 rejection presented above based on new guidance (2019 PEG).

With respect to Applicant's arguments regarding "Significantly More" Than the Abstract Idea (*Berkheimer*), Examiner notes that these arguments are moot in view of 35 U.S.C. 101 rejection presented above based on new guidance (2019 PEG).

With respect to Applicant's arguments regarding *DDR Holdings*, Examiner notes that unlike *DDR Holdings*, the claimed invention simply uses the technology as a tool in applying the abstract idea without providing any technical improvements. Simply using a technology does not restrict the claim to be rooted in computer technology particularly when the claimed abstract idea simply corresponds to Certain Methods of Organizing Human Activity. Thus, these arguments are not persuasive.

With respect to Applicant's arguments regarding *BASCOM*, *Enfish* and Example 35, Examiner notes that unlike *BASCOM*, *Enfish* and Example 35, the claimed invention does not provide any improvements that may integrate the abstract idea into a practical application and hence the claimed invention do not meaningfully apply the abstract idea in a way that may result in patent eligibility. Providing secure communications between and communicate cart information between a merchant device and a customer device during a transaction at a physical merchant location is viewed as applying the claimed invention using technology. The claimed process does not result in technology improvement. It simply makes use of the encryption technology to create secure communication. Thus, these arguments are not persuasive.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAJESH KHATTAR whose telephone number is (571)272-7981. The examiner can normally be reached on M-F 8AM-5PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shahid Merchant can be reached on 571-270-1360. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/RAJESH KHATTAR/  
Primary Examiner, Art Unit 3693



IN THE CLAIMS:

1. (previously presented) A method for conducting a transaction between a merchant and a customer, the method comprising:

broadcasting, from a merchant device to a customer device, information identifying the merchant device while the merchant device and the customer device are both located at a physical merchant location to cause the broadcast information to be displayed on the customer device, wherein the merchant device includes one or more point of sale (POS) terminals;

receiving, at the merchant device from the customer device, a connection request to initiate a connection between the merchant device and the customer device;

in response to the received connection request, exchanging encryption keys between the merchant device and the customer device to establish a secure wireless channel between the merchant device and the customer device;

receiving, over the secure wireless channel, at the merchant device, a check-in request from the customer device, the check-in request including information identifying the customer;

prompting the merchant to accept the check-in request by displaying a message on the merchant device;

accepting, at the merchant device, the check-in request based on an input made by the merchant on the merchant device in response to the displayed message;

generating, as a result of acceptance of the check-in request, cart information of the customer at the merchant device, the cart information generated based on data inputted by the merchant into the merchant device, the cart information representing details of items being purchased;

transmitting, by the merchant device, the cart information to the customer device to cause the cart information to be displayed on the customer device prior to initiating a payment

process for the items and while the customer device is located at the physical merchant location, and to cause the cart information to be synchronized in real-time between the merchant device and the customer device while the customer is present at the physical merchant location;

determining, via the secure wireless channel, at least one payment option for checking out the items corresponding to the cart information; and

processing, over the secure wireless channel established between the merchant device and the customer device, a payment associated with the cart information based on a selected payment option out of the at least one payment option.

2. (previously presented) The method as claimed in claim 1, wherein the secure wireless channel comprises a Bluetooth low energy connection.

3. (canceled)

4. (canceled)

5. (previously presented) The method as claimed in claim 1, wherein the check-in request includes at least one of an alphanumeric string, a sound, an icon, and a picture associated with the customer.

6. (previously presented) The method as claimed in claim 1, wherein the check-in request is automatically received in response to the customer device being positioned proximate the merchant device.

7. (canceled)

8. (canceled)

9. (previously presented) The method as claimed in claim 1, wherein transmitting the cart information comprises:

receiving, from the customer device at the merchant device, a request for the cart information;

transmitting, by the merchant device to the customer device, the cart information in response to the request; and

receiving, from the customer device at the merchant device, a cart update acknowledgement that indicates that the customer device received the cart information.

10. (previously presented) The method as claimed in claim 1, wherein the method further comprises:

sending, from the merchant device, a cart update to the customer device, wherein the cart update corrects an error in the cart information, the error caused by at least one of a duplicate entry of an item and an erroneous entry of an item entered by the merchant; and

receiving, at the merchant device from the customer device, a cart update acknowledgement indicating that the cart information was corrected on the customer device.

11. (currently amended) The method as claimed in claim 1, wherein the method further comprises:

receiving, from the customer device at the merchant device, a cart lock request generated at the customer device, the cart lock request allowing the customer device to control operation of the merchant device;

locking, by the merchant device, the cart information in response to the cart lock request received from the customer device, wherein locking the cart information allows the customer device to ~~prevents prevent~~ the merchant from editing the cart information on the merchant device;

receiving, from the customer device at the merchant device, a cart update, wherein the cart update indicates an addition or removal of an item from the cart information;

sending, from the merchant device to the customer device, a cart update acknowledgement;

receiving, from the customer device at the merchant device, a cart unlock request generated at the customer device, the cart unlock request allowing the customer device to further control operation of the merchant device; and

unlocking, by the merchant device, the cart information in response to the cart unlock request received from the customer device, allowing the customer device to permit the merchant to resume editing the cart information on the merchant device.

12. (previously presented) The method as claimed in claim 11, wherein the item is at least one of a voucher, a coupon, a discount, and loyalty points that appears on the customer device in connection with a loyalty program.

13. (previously presented) The method as claimed in claim 1, wherein the method further comprises broadcasting promotional information from the merchant device to the customer device.

14. (original) The method as claimed in claim 13, wherein the promotional information is specific to the customer.

15. (original) The method as claimed in claim 1, wherein the at least one payment option includes at least one of the following: payment in cloud, tokenized payment, and payment by an EMV enabled chip.

16. (original) The method as claimed in claim 1, wherein processing the payment comprises communicating with an off-site transaction processing device.

17. (previously presented) A merchant device for conducting a transaction between a merchant and a customer, the merchant device configured to:

broadcast information identifying the merchant device to a customer device while the merchant device and the customer device are both located at a physical merchant location to cause the broadcast information to be displayed on the customer device, wherein the merchant device includes one or more point of sale (POS) terminals;

receive, from the customer device, a connection request to initiate a connection between the merchant device and the customer device;

in response to the received connection request, exchange encryption keys with the customer device to establish a secure wireless channel between the merchant device and the customer device;

receive, over the secure wireless channel, a check-in request from the customer device, the check-in request including information identifying the customer;

prompt the merchant to accept the check-in request by displaying a message on the merchant device;

accept the check-in request based on an input made by the merchant on the merchant device in response to the displayed message;

generate, as a result of acceptance of the check-in request, cart information of the customer, the cart information generated based on data inputted by the merchant into the merchant device, the cart information representing details of items being purchased;

transmit, by the merchant device, the cart information to the customer device to cause the cart information to be displayed on the customer device prior to initiating a payment process for the items and while the customer device is located at the physical merchant location, and to cause the cart information to be synchronized in real-time between the merchant device and the customer device while the customer is present at the physical merchant location;

determine, via the secure wireless channel, at least one payment option for checking out the items corresponding to the cart information; and

facilitate, over the secure wireless channel established between the merchant device and the customer device, processing of a payment associated with the cart information based on a selected payment option out of the at least one payment option.

18. (previously presented) A computer storage medium having stored thereon computer code means to instruct a merchant device to execute a method for conducting a transaction between a merchant and a customer, the method comprising:

broadcasting, from the merchant device to a customer device, information identifying the merchant device while the merchant device and the customer device are both located at a physical merchant location to cause the broadcast information to be displayed on the customer device, wherein the merchant device includes one or more point of sale (POS) terminals;

receiving, at the merchant device from the customer device, a connection request to initiate a connection between the merchant device and the customer device;

in response to the received connection request, exchanging encryption keys between the merchant device and the customer device to establish a secure wireless channel between the merchant device and the customer device;

receiving, over the secure wireless channel, at the merchant device, a check-in request from the customer device, the check-in request including information identifying the customer;

prompting the merchant to accept the check-in request by displaying a message on the merchant device;

accepting, at the merchant device, the check-in request based on an input made by the merchant on the merchant device in response to the displayed message;

generating, as a result of acceptance of the check-in request, cart information of the customer at the merchant device, the cart information generated based on data inputted by the merchant into the merchant device, the cart information representing details of items being purchased;

transmitting, by the merchant device, the cart information to the customer device to cause the cart information to be displayed on the customer device prior to initiating a payment

process for the items and while the customer device is located at the physical merchant location, and to cause the cart information to be synchronized in real-time between the merchant device and the customer device while the customer is present at the physical merchant location;

determining, via the secure wireless channel, at least one payment option for checking out the items corresponding to the cart information; and

processing, over the secure wireless channel established between the merchant device and the customer device, a payment associated with the cart information based on a selected payment option out of the at least one payment option.

19. (previously presented) The computer storage medium as claimed in claim 18, wherein the secure wireless channel is a Bluetooth low energy connection.

20. (canceled)

21. (previously presented) The method as claimed in claim 1, wherein the determining at least one payment option comprises:

transmitting, from the merchant device to the customer device, a list of payment options supported by the merchant device;

receiving, from the merchant device at the customer device, a filtered list of payment options supported by the merchant device and the customer device;

selecting, using the merchant device, the selected payment option from the filtered list; and

transmitting, from the merchant device to the customer device, a message requesting the customer device initiate payment using the selected payment option.

22. (previously presented) The method as claimed in claim 1 further comprising:

broadcasting, from each of the one or more POS terminals to the customer device, information identifying the respective POS terminal; and

receiving, from the customer device, at one POS terminal, the connection request to initiate the connection between the merchant device and the customer device, the connection request including a request by the customer device to connect to the one POS terminal instead of the remaining POS terminals.



**REMARKS**

The Office Action dated March 18, 2019 has been carefully reviewed, and the foregoing Amendment and following remarks have been made in consequence thereof.

Claims 1, 2, 5, 6, 9-19, 21, and 22 are now pending in this application. Claims 1, 2, 5, 6, 9-19, 21, and 22 stand rejected. Claim 11 is amended herein. Support for these amendments can be found at least at paragraph [0057] and Fig. 6 of the published application. No new matter is added.

**Examiner Interview Summary**

Applicant thanks Examiner Khattar for the courtesies shown to Applicant's representative during the June 5, 2019 interview. During the interview, Applicant's representative and the Examiner discussed the pending Section 101 rejection, which is the only remaining rejection. No agreement was reached regarding the subject matter eligibility of independent Claim 1. However, the Examiner indicated that dependent Claim 11 may be directed to patent-eligible subject matter. This response is made in furtherance of that discussion.

**Rejection under 35 U.S.C. §101**

Claims 1, 2, 5, 6, 9-19, 21, and 22 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Applicant traverses this rejection. Specifically, Applicant submits the pending claims are patentable under the 2019 PEG.

The 2019 PEG provides a framework for the USPTO to evaluate, at Step 2A, whether the claims are "directed to" an abstract idea. The procedure focuses on two prongs: (1) whether the claim recites a judicial exception, and (2) if so, whether the recited judicial exception is integrated into a practical application. *See* 2019 PEG.

Under the framework established by the 2019 PEG, the pending claims are not directed to an abstract idea. The First Prong of Step 2A requires identification of specific limitations (individually or in combination) in the claim under examination that fall within at least one of

three subject matter groupings of abstract ideas: mathematical concepts, certain methods of organizing human activity, and mental processes. *See* 2019 PEG.

Here, the pending claims do not recite an abstract idea. For example, Claim 1 recites a method for conducting a transaction between a merchant and a customer, the method including “broadcasting, from a merchant device to a customer device, information identifying the merchant device while the merchant device and the customer device are both located at a physical merchant location to cause the broadcast information to be displayed on the customer device, wherein the merchant device includes one or more point of sale (POS) terminals . . . receiving, at the merchant device from the customer device, a connection request to initiate a connection between the merchant device and the customer device . . . in response to the received connection request, exchanging encryption keys between the merchant device and the customer device to establish a secure wireless channel between the merchant device and the customer device . . . receiving, over the secure wireless channel, at the merchant device, a check-in request from the customer device, the check-in request including information identifying the customer . . . prompting the merchant to accept the check-in request by displaying a message on the merchant device . . . accepting, at the merchant device, the check-in request based on an input made by the merchant on the merchant device in response to the displayed message . . . generating, as a result of acceptance of the check-in request, cart information of the customer at the merchant device, the cart information generated based on data inputted by the merchant into the merchant device, the cart information representing details of items being purchased . . . transmitting, by the merchant device, the cart information to the customer device to cause the cart information to be displayed on the customer device prior to initiating a payment process for the items and while the customer device is located at the physical merchant location, and to cause the cart information to be synchronized in real-time between the merchant device and the customer device while the customer is present at the physical merchant location . . . determining, via the secure wireless channel, at least one payment option for checking out the items corresponding to the cart information . . . and processing, over the secure wireless channel established between the merchant device and the customer device, a payment associated with the cart information based on a selected payment option out of the at least one payment option.”

At page 3 of the Office Action, the Office asserts that the claims recite certain methods of organizing human activity. Applicant respectfully disagrees. Specifically, Applicant submits that none of the recitations of independent Claims 1, 17, and 18 can be performed mentally, recite nothing more than mathematical concepts, or are reasonably categorized as methods of organizing human activity.

For example, the pending claims recite specific functions that cannot be performed mentally (i.e., i) broadcasting, from a merchant device to a customer device, information identifying the merchant, ii) receiving, at the merchant device from the customer device, a connection request to initiate a connection between the merchant device and the customer device, iii) exchanging encryption keys between the merchant device and the customer device to establish a secure wireless channel, iv) receiving, over the secure wireless channel, at the merchant device, a check-in request from the customer device, v) prompting the merchant to accept the check-in request by displaying a message on the merchant device, vi) accepting, at the merchant device, the check-in request based on an input made by the merchant on the merchant device, vii) generating, as a result of acceptance of the check-in request, cart information of the customer at the merchant device, viii) transmitting, by the merchant device, the cart information to the customer device to cause the cart information to be displayed on the customer device, ix) determining, via the secure wireless channel, at least one payment option, and x) processing, over the secure wireless channel established between the merchant device and the customer device, a payment based on a selected payment option). Accordingly, for at least the reasons set forth above, the present claims do not recite a mental process. Further, the present claims do not recite a particular mathematical relationship or formula, and thus do not recite a mathematical concept.

Regarding methods of organizing human activity, while the claims generally relate to payment transactions, the claim limitations themselves are narrowly focused on a particular sequence of actions performed between a merchant device (i.e., a POS terminal) and a customer device at a retail location to establish a secure wireless channel between the devices, synchronize cart information between the devices, and process payment over the secure wireless channel. These actions are technical limitations that involve specific data manipulations (broadcasting info, exchanging encryption keys, prompts, processing payment, etc.). Performing data

manipulations at this level of specificity is not reasonably construed as a mere method of organizing human activity.

Therefore, these claims should be found to be subject matter eligible under the First Prong.

Even assuming, *arguendo*, that the present claims recite an abstract idea, the present claims are subject-matter eligible under the Second Prong of Step 2A. Under the Second Prong, a claim that recites an abstract idea nevertheless is not “directed to” the abstract idea if the claim as a whole integrates the abstract idea into a practical application. *See* 2019 PEG. Notably, under the Second Prong, it is immaterial whether the claim recites “conventional” computer elements or functions. In other words, recitation of computer elements and functions that represent well-understood, routine, or conventional activity may still integrate an exception into a practical application.

As noted above, the present claims, viewed at the highest level of generality, relate to payment transactions. However, the specific limitations of the claims are directed to a practical application. That is, the detailed limitations recite a specific manner of establishing a secure wireless channel between the devices, synchronizing cart information between the devices, and processing payment over the secure wireless channel.

In the Office Action, in reference to the Second Prong of Step 2A the Office asserts that the present claims recite a generic computing device and generic computer elements. Accordingly, the Office appears to be arguing that the present claims are not directed to improvements to the functioning of a computer. However, under the Second Prong, limitations that are indicative of integration into a practical application include “[i]mprovements to the functioning of a computer, or to *any other technology or technical field*.” (Citing MPEP 2106.05(a), emphasis added).

Here, the claims recite a *specific improvement in the field of conducting electronic payment transactions between a cardholder device and a merchant POS device* in accordance with the 2019 PEG. Applicant’s disclosure at, for example, paragraphs [0004]-[0006] describes the difficulties with existing check-out processes at a physical merchant location for customers

who wish to efficiently check-out without waiting in line, and who wish to verify/modify line item purchases during the check-out process prior to tendering payment. The present claims, when viewed as a whole, describe a specific method that improves upon these deficiencies, and provides technical improvements. For example, the claimed systems and methods improve transaction speed and efficiency, and solve problems associated with known systems (e.g., customers unable to check purchases in real-time before checking out, customers waiting in line to check out, customers waiting at a table to check out at a restaurant, etc.).

Accordingly, the Specification of the present application describes the technical problem, while the Specification and the present claims recite a technical solution to the technical problem. As described in the Specification and recited in the claims, a customer device and a merchant device at a retail location establish a secure wireless channel between the devices, synchronize cart information between the devices, and process payment over the secure wireless channel. *See Ex parte Del Bene*, No. 2017-009185 (PTAB Feb. 28, 2019) (reversing Section 101 rejection under the second prong due to improvement of the underlying consumer behavior technology). Thus, the claims provide an improvement to the technical field of electronic payment transactions between a cardholder device and a merchant POS device.

Accordingly, Applicant submits that the present independent claims provide specific improvements over prior systems and are directed to a practical application, such that the present claims are not directed to an abstract idea under the Second Prong of Step 2A.

In the alternative, even assuming that the claims are directed towards the alleged “abstract idea” under Step 2A, the independent claims recite “significantly more” than the abstract idea itself under Step 2B.

For example, the improvements described by the present claims are analogous to those in *DDR Holdings, LLC v. Hotels.com et al.*, 113 USPQ2d 1097 (Fed. Cir. 2014). In *DDR Holdings*, the court held that the claims in the case stood apart because they did not “merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.*

Just as in *DDR Holdings*, the claims of the present application present a “claimed solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” More specifically, the systems and methods recited in the present claims specifically address the problem of customers typically having no opportunity to verify their purchase line items, including vouchers and discounts, in real-time prior to making a payment and receiving a receipt (Specification, [0004]-[0006]). The present claims address this problem by enabling a secure wireless channel to be established between a customer device and a merchant device while both devices are located at a physical merchant location, such that a customer can review, in real-time, items for purchase on their customer device during the check-out process. Accordingly, the present claims are rooted in computer technology, and directed to patent eligible subject matter for at least the same reasons given in *DDR Holdings*.

For at least the reasons described above, the independent claims recite elements that are significantly more than the alleged abstract idea under Step 2B.

Further, in the event that the Office maintains that the independent claims do not satisfy §101, Applicant submits that at least dependent Claim 11 is directed to patent-eligible subject matter.

Dependent Claim 11 recites that the method further includes “receiving, from the customer device at the merchant device, a cart lock request generated at the customer device, the cart lock request allowing the customer device to control operation of the merchant device . . . locking, by the merchant device, the cart information in response to the cart lock request received from the customer device, wherein locking the cart information allows the customer device to prevent the merchant from editing the cart information on the merchant device . . . receiving, from the customer device at the merchant device, a cart update, wherein the cart update indicates an addition or removal of an item from the cart information . . . sending, from the merchant device to the customer device, a cart update acknowledgement . . . receiving, from the customer device at the merchant device, a cart unlock request generated at the customer device, the cart unlock request allowing the customer device to further control operation of the merchant device . . . and unlocking, by the merchant device, the cart information in response to

the cart unlock request received from the customer device, allowing the customer device to permit the merchant to resume editing the cart information on the merchant device.” Accordingly, Claim 11 is generally directed to *the customer device transmitting messages (e.g., the cart lock request and the cart unlock request) to the merchant device to control operation of the merchant device.*

Under the First Prong of Step 2A, Applicant submits that none of the recitations of dependent Claim 11 can be performed mentally, recite nothing more than mathematical concepts, or are reasonably categorized as methods of organizing human activity. Accordingly Claim 11 is not directed to an abstract idea.

Even assuming, *arguendo*, that Claim 11 recites an abstract idea, Claim 11 is subject-matter eligible under the Second Prong of Step 2A because Claim 11 integrates any alleged abstract idea into a practical application. Specifically, Claim 11 is directed to a customer device controlling operation of a merchant device to provide technical improvements (i.e., by allowing the customer device to selectively inhibit modification of cart information on the merchant device).

Accordingly, Applicant submits that the Claim 11 provides specific improvements over prior systems and is directed to a practical application, such that the Claim 11 is not directed to an abstract idea under the Second Prong of Step 2A.

Further, even assuming that Claim 11 is directed towards any alleged “abstract idea” under Step 2A, Claim 11 recites “significantly more” than the abstract idea itself under Step 2B.

As explained in MPEP 2106.05(I)(A)(v), adding a specific limitation other than what is well-understood, routine, conventional activity in the field, or adding unconventional steps that confine the claim to a particular useful application, *e.g.*, a non-conventional and non-generic arrangement of various computer components for filtering Internet content, as discussed in *BASCOM Global Internet v. AT&T Mobility LLC*, 827 F.3d 1341, 1350-51, 119 USPQ2d 1236, 1243 (Fed. Cir. 2016) (see MPEP § 2106.05(d)), qualifies a claim as “significantly more.” Similarly to *BASCOM*, Claim 11 is directed to a non-conventional and non-generic arrangement of computer components, as it is directed to *a customer device transmitting messages (e.g., a*

*cart lock request and a cart unlock request) to a merchant device to control operation of the merchant device.* Accordingly, like the claims at issue in *BASCOM*, Claim 11 is directed to “significantly more” than any alleged abstract idea.

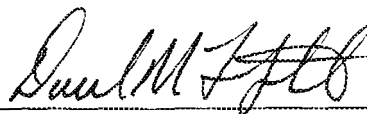
For at least the above reasons, at least dependent Claim 11 is directed to patent-eligible subject matter.

Accordingly, for at least the reasons described above, Claims 1, 2, 5, 6, 9-19, 21, and 22 are submitted to be eligible under §101. Applicant respectfully requests the §101 rejection be withdrawn.

**Concluding Remarks**

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Respectfully submitted,



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