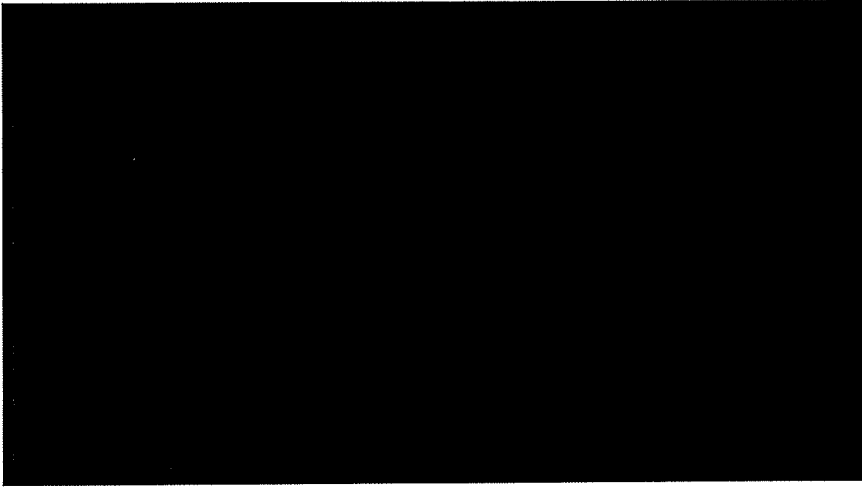


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Electronic Acknowledgement Receipt

EFS ID:	46452491
Application Number:	17654732
International Application Number:	
Confirmation Number:	5715
Title of Invention:	METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS
First Named Inventor/Applicant Name:	Paresh K. Patel
Customer Number:	24341
Filer:	Douglas James Crisman/vladimir skliba
Filer Authorized By:	Douglas James Crisman
Attorney Docket Number:	104402-5065-US
Receipt Date:	21-AUG-2022
Filing Date:	14-MAR-2022
Time Stamp:	08:45:19
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Non Patent Literature	PayRange_NoticeReasonsRejection_JP2018543707_04SEP2020.pdf	146887 b2e5e929aee0f3f5eaa02c3a012b323a659a0a3a	no	4

Warnings:

Petitioner Exhibit 1002-2074

Information:					
2	Non Patent Literature	PayRange_NoticeReasonsRejection_JP2020101558_07OCT2021.pdf	58539	no	2
			0e02ffd93bfe71f10ca48deefafcd1f903003f1		
Warnings:					
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3	Non Patent Literature	PayRange_Summons_EP148286172_02APR2020.pdf	619032	no	12
			a08e0275fca95e61ae22864b3c1e276fc92ba4db8		
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4	Non Patent Literature	PayRangeNewProductLaunch_27DEC2015.pdf	59357	no	1
			6c3b33d27157241267f4ad853c177a44c92ba7aa		
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5	Non Patent Literature	Raja_AStochasticGame_2015.pdf	714040	no	8
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6	Non Patent Literature	RobocopyEs_13FEB2018.pdf	456558	no	2
			4f9dbdc192cf7c5cd4d05c276a67e5a8b7b97811		
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7	Non Patent Literature	SmartVendingMachineDemo_03DEC2013.pdf	52328	no	1
			76328e37f032870b8c8f25e9bc048811f13840af		
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			6858a7e5b5771c2cb0b466bde46494725bcac230		
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



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NOTICE OF ALLOWANCE AND FEE(S) DUE

24341 7590 09/16/2022
Morgan, Lewis & Bockius LLP (PA)
1400 Page Mill Road
Palo Alto, CA 94304-1124

EXAMINER	
POINVIL, FRANTZY	
ART UNIT	PAPER NUMBER

3698

DATE MAILED: 09/16/2022

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/654,732	03/14/2022	Paresh K. Patel	104402-5065-US	5715

TITLE OF INVENTION: METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	12/16/2022

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

24341 7590 09/16/2022
Morgan, Lewis & Bockius LLP (PA)
1400 Page Mill Road
Palo Alto, CA 94304-1124

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/654,732	03/14/2022	Paresh K. Patel	104402-5065-US	5715

TITLE OF INVENTION: METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$600	\$0.00	\$0.00	\$600	12/16/2022

EXAMINER	ART UNIT	CLASS-SUBCLASS
POINVIL, FRANTZY	3698	705-044000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,

1 _____

(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies _____

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. Change in Entity Status (from status indicated above)

☐ Applicant certifying micro entity status. See 37 CFR 1.29

☐ Applicant asserting small entity status. See 37 CFR 1.27

☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/654,732	03/14/2022	Paresh K. Patel	104402-5065-US	5715
24341	7590	09/16/2022	EXAMINER	
Morgan, Lewis & Bockius LLP (PA)			POINVIL, FRANTZY	
1400 Page Mill Road			ART UNIT	
Palo Alto, CA 94304-1124			PAPER NUMBER	
			3698	
DATE MAILED: 09/16/2022				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 17/654,732	Applicant(s) Patel, Paresh K.	
	Examiner FRANTZY POINVIL	Art Unit 3698	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the response filed 8/19/2022.
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 1-20. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a) ☐ All b) ☐ Some* c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892) 2. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date <u>8/21/2022</u> . 3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____. 4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.	5. ☐ Examiner's Amendment/Comment 6. ☒ Examiner's Statement of Reasons for Allowance 7. ☐ Other _____.
--	--

/FRANTZY POINVIL/
Primary Examiner, Art Unit 3698

DETAILED ACTION

Notice of Pre-AIA or AIA Status

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

Allowable Subject

2. The following is an examiner's statement of reasons for allowance:

Claims 1-20 are allowable over the art of record.

The prior art taken alone or in combination failed to teach or suggest:

“identifying one or more payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device, the identifying based at least in part on an identifier corresponding to the one or more payment accepting units, wherein the one or more payment accepting units are payment operated machines that accept payment for dispensing of products and/or services, and displaying a user interface of the mobile payment application on the display of the mobile device, the user interface being configured to display a visual indication of the one or more payment accepting units and accept user input to (i) receive selection by a user of the mobile device of an available payment accepting unit of the one or more payment accepting units and (ii) trigger payment by the mobile payment application for a transaction initiated by the user of the mobile device with the available payment accepting unit of the one or more payment accepting units”, as recited in independent claims 1, 13 and 15.

3. The prior following prior art taken alone or in combination fails to teach or suggest the above noted limitations.

Mei (US 20190236586 A1) discloses a payment processing method and apparatus, where the payment processing method includes obtaining by a payee terminal, transaction information of a payment card application, determining, by the payee terminal based on the transaction information, that a running environment of the payment card application is a mobile terminal device; and sending, by the payee terminal, payment voucher information of the payment card application to the mobile terminal device using a first communications technology, where the first communications technology includes a short range communications technology. Hence, a user can conveniently manage and view payment voucher information.

Xu et al (US 20160132870 A1) disclose a method implemented at a server to facilitate secure offline transactions. The server receives, from a client device, an authorization request that includes a user identifier, first financial account information and a secure code. The server authenticates the authorization request, and sends a first transaction approval to the client device. Then, in accordance with the information received in the authorization request, the server facilitates a secure transaction between the client device and a point-of-sale (POS) machine while the client device is offline. Specifically, the server receives, from the POS machine, a transaction request that includes at least the user identifier and the security code. The server retrieves the first financial account information from a memory according to the user identifier and the security code, performs a transaction operation associated with the first financial account information, and sends a second transaction approval to the POS machine.

The above recited limitations provide meaningful limitations that transforms the abstract idea into patent eligible. The claim as a whole effects an improvement to another technology or technical field. These limitations in combination provide meaningful limitations beyond generally linking the use of the abstract idea to a practical application.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANTZY POINVIL whose telephone number is (571)272-6797. The examiner can normally be reached M-Th 7:00AM to 5:30PM.

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, Michael Anderson can be reached on 571-270-0508. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/fp/

/FRANTZY POINVIL/
Primary Examiner, Art Unit 3698

August 31, 2022

<i>Notice of References Cited</i>	Application/Control No. 17/654,732		Applicant(s)/Patent Under Reexamination Patel, Paresh K.	
	Examiner FRANTZY POINVIL		Art Unit 3698	Page 1 of 1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
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	J					
	K					
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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
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NON-PATENT DOCUMENTS

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	V	Carton et al., "Framework for Mobile Payments Integration", Electronic Journal of Information Systems Evaluation, 15.1: 13-24, Academic Conferences International Limited, January. (Year: 2012).
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	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Index of Claims</i> 	Application/Control No. 17/654,732	Applicant(s)/Patent Under Reexamination Patel, Paresh K.
	Examiner FRANTZY POINVIL	Art Unit 3698

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS										
☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47										
CLAIM		DATE								
Final	Original	05/16/2022	08/31/2022							
1	1	✓	=							
2	2	✓	=							
3	3	✓	=							
4	4	✓	=							
5	5	✓	=							
6	6	✓	=							
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16	16	✓	=							
17	17	✓	=							
18	18	✓	=							
19	19	✓	=							
20	20	✓	=							

Issue Classification 	Application/Control No. 17/654,732	Applicant(s)/Patent Under Reexamination Patel, Paresh K.	
	Examiner FRANTZY POINVIL	Art Unit 3698	

CPC						
Symbol					Type	Version
G06Q	/	20	/	40	F	2013-01-01
G06Q	/	20	/	327	I	2013-01-01
G06Q	/	20	/	18	I	2013-01-01
G06Q	/	20	/	322	I	2013-01-01
G06Q	/	20	/	3226	I	2013-01-01
G06Q	/	20	/	3278	I	2013-01-01
G07F	/	7	/	0893	I	2013-01-01
G07F	/	9	/	023	I	2013-01-01

CPC Combination Sets				
Symbol	Type	Set	Ranking	Version
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NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 20	
/FRANTZY POINVIL/ Primary Examiner, Art Unit 3698 (Primary Examiner) _____ (Date) 31 August 2022		O.G. Print Claim(s) 1	O.G. Print Figure 8b

<i>Issue Classification</i> 	Application/Control No. 17/654,732	Applicant(s)/Patent Under Reexamination Patel, Paresh K.
	Examiner FRANTZY POINVIL	Art Unit 3698

INTERNATIONAL CLASSIFICATION			
CLAIMED			
G06Q	/	20	/ 40
NON-CLAIMED			
	/		/

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS
705	44

CROSS REFERENCES(S)						
CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
705	44					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/FRANTZY POINVIL/ Primary Examiner, Art Unit 3698	31 August 2022	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	8b

Issue Classification 	Application/Control No. 17/654,732	Applicant(s)/Patent Under Reexamination Patel, Paresh K.
	Examiner FRANTZY POINVIL	Art Unit 3698

☒ Claims renumbered in the same order as presented by applicant ☐ CPA ☒ T.D. ☐ R.1.47

CLAIMS															
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
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/FRANTZY POINVIL/ Primary Examiner, Art Unit 3698 (Primary Examiner) _____ (Date) 31 August 2022		O.G. Print Claim(s) 1	O.G. Print Figure 8b

Search Notes 	Application/Control No. 17/654,732	Applicant(s)/Patent Under Reexamination Patel, Paresh K.
	Examiner FRANTZY POINVIL	Art Unit 3698

CPC - Searched*		
Symbol	Date	Examiner
G06Q20/40; G06Q20/18; G06Q20/322; G06Q20/3226; G06Q20/327; G06Q20/3278; G07F7/0893; G07F9/023	05/16/2022	FP
G06Q20/40; G06Q20/18; G06Q20/322; G06Q20/3226; G06Q20/327; G06Q20/3278; G07F7/0893; G07F9/023	08/31/2022	FP

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
705	3-44	05/16/2022	FP
705	3-44	08/31/2022	FP

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
See the attached DAV and Proquest searches.	05/16/2022	FP
See the attached DAV and Proquest searches.	08/31/2022	FP

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
705	44	08/31/2022	FP

/FRANTZY POINVIL/ Primary Examiner, Art Unit 3698	
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PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	411	(payee\$ OR seller\$1) adj10 (terminal\$1 OR computer\$1 OR device\$1) adj10 (payment\$ OR card\$1 OR mobile) adj10 (bluetooth OR wireless\$)	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, CA, CH, CN, DD, DE, EA, EP, ES, FR, GB, JP, KR, OA, RU, SU, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/05/16 06:56 AM
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Set#	Searched for	Results
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S2	S1 and ((payment[*1] or paying) pre/8 (trigg* or transaction[*1]))	1599
S3	((((Select* or chos* or choos* or accept*) or pre/15 or (payee* or seller[*1])) or pre/15 or (terminal[*1] or computer[*1] or mobile or phone or device[*1]))	262661331
S4	S2 and S3	1599
S5	S4 and mobile and accelerat*	409°
S6	s1 and s3	42936*
S7	s5 and s6	409°

* Duplicates are removed from the search, but included in the result count.

° Duplicates are removed from the search and from the result count.

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Framework for Mobile Payments Integration

Author: Carton, Fergal; Hedman, Jonas; Damsgaard, Jan; Tan, Kay-Ti; McCarthy, J B

Publication info: Electronic Journal of Information Systems Evaluation 15.1: 13-24. Academic Conferences International Limited. (Jan 2012)

[ProQuest document link](#)

Abstract (summary): This paper derives a theoretical framework for consideration of both the technologically driven dimensions of mobile payment solutions, and the associated value proposition for customers. Banks promote traditional payment instruments whose value proposition is the management of risk for both consumers and merchants. These instruments are centralised, costly and lack decision support functionality. The ubiquity of the mobile phone has provided a decentralised platform for managing payment processes in a new way, but the value proposition for customers has yet to be elaborated clearly. This inertia has stalled the design of sustainable revenue models for a mobile payments ecosystem. Merchants and consumers in the meantime are being seduced by the convenience of on-line and mobile payment solutions. Adopting the purchase and payment process as the unit of analysis, the current mobile payment landscape is reviewed with respect to the creation and consumption of customer value. From this analysis, a framework is derived juxtaposing customer value, related to what is being paid for, with payment integration, related to how payments are being made. The framework provides a theoretical and practical basis for considering the contribution of mobile technologies to the payment industry. The framework is then used to describe the components of a mobile payments pilot project being run on a trial population of 250 students on a campus in Ireland. In this manner, weaknesses in the value proposition for consumers and merchants were highlighted. Limitations of the framework as a research tool are also discussed. [PUBLICATION ABSTRACT]

Links: [Check USPTO-STIC for Availability](#)

Full text: Headnote

Abstract: This paper derives a theoretical framework for consideration of both the technologically driven dimensions of mobile payment solutions, and the associated value proposition for customers. Banks promote traditional payment instruments whose value proposition is the management of risk for both consumers and merchants. These instruments are centralised, costly and lack decision support functionality. The ubiquity of the mobile phone has provided a decentralised platform for managing payment processes in a new way, but the value proposition for customers has yet to be elaborated clearly. This inertia has stalled the design of sustainable revenue models for a mobile payments ecosystem. Merchants and consumers in the meantime are being seduced by the convenience of on-line and mobile payment solutions. Adopting the purchase and payment process as the unit of analysis, the current mobile payment landscape is reviewed with respect to the creation and consumption of customer value. From this analysis, a framework is derived juxtaposing customer value, related to what is being paid for, with payment integration, related to how payments are being made. The framework provides a theoretical and practical basis for considering the contribution of mobile technologies to the payment industry. The framework is then used to describe the components of a mobile payments pilot project being run on a trial population of 250 students on a campus in Ireland. In this manner, weaknesses in the value proposition for consumers and merchants were highlighted. Limitations of the framework as a research tool are also discussed.

Keywords: payments, framework, mobile, value

1. Introduction

Payments are central to the growth of modern civilisations. Payment systems have evolved substantially over time, from earliest bartering systems, to systems based on coins of precious metal, to the virtual payment systems of today (Ferguson, 2008). The mobile phone is capable of providing a bridge between the traditional

and the new payment systems, supporting on demand purchase and payment processes in a manner heretofore not conceivable. The transition to mobile phone driven payment processes is not smooth, however, not because of a lack of technology innovation, but because the underlying players in the industry are reluctant to change their existing business models. Banks and their customers are not in agreement as to what constitutes good value in terms of payment alternatives, a phenomenon also found among stakeholders to technology adoption (Au and Kauffman, 2008). Research has suggested that the high failure rate of mobile payment solutions is linked to their inability to provide the right value proposition to customers (Ondrus et al., 2005). Banks promote payment instruments that earn them most revenue. These tend to be centralised and inconvenient. Customers have little choice in selecting payment instruments, but are being seduced by the control and convenience of on-line and mobile payment solutions, which provide flexibility and convenience. Until a solid value proposition emerges that combines value for both banks and customers, the innovation in terms of payment solutions will remain sporadic and piecemeal. This paper explores the existing research domains from which such value propositions or business models could be drawn, and extrapolates a theoretical basis for further research in the area of payments.

The challenge of understanding the driving forces in the market for electronic payments is that there are an accelerating range of solutions that address shortcomings in legacy payment processes. For example, many innovative solutions support the connection of existing bank or credit card accounts to on-line virtual wallet transactions (Olsen et al. 2011), substituting the phone for the desktop computer but without changing the underlying value proposition. Other solutions leveraging the processing capability of Smart phones seek to associate the payment transaction with other customer related processes such as loyalty points programmes, but are by definition focused on a particular segment of Smart phone using consumers. While such developments espouse key technology adoption factors such as consumer convenience and ease of use, they also tend to obscure visibility of the comparative value of choosing a particular payment instrument over an alternative.

The language used for describing payments has relied on traditional banking terminology such as payment instruments, or on technological concepts such as connectivity. There are many other possible dimensions for describing payments such as transaction type, payment domains or geographic scope. Indeed one of the difficulties for the development of an ecosystem for mobile payments has been the lack of a common vocabulary between the financial services community and the technology service community. The method used in this study is to categorise the concepts used to describe mobile payments, and map these "technological" categories against factors describing the business setting of procurement and settlement, thereby allowing us to effectively accumulate knowledge, and to interpret previous findings (Dahlberg et al., 2008). This framework is based on the assumption that mobility (Gump and Pousttchi, 2005) is simply an extension of the same virtualisation technologies that have been used by organisations since the earliest days of information technology. Rather than considering laptops, PDA.s, smart phones and tablets as disruptive technologies (Christensen, 1997), we take the view that their pervasiveness as access devices to processes and information does not fundamentally alter the relationship between people, processes and technology. Virtualisation provides users with visibility and control of resources, and mobile technology should provide this visibility and control on the move.

Researchers have adopted different units of analysis in studying the evolution of mobile payments, including exploring the payments market (Dahlberg et al., 2008; Ondrus et al., 2005) in the macro- economic sense, payments technologies (Ondrus and Pigneur, 2007), payments technology adoption factors (Pousttchi, 2003; Plouffe et al, 2001) or design of mobile wallet (Olsen et al., 2011). In this study, we are interested in understanding mobile payments as an element of a purchase and settlement process. In a sense we take a contractual law perspective, meaning that a payment is one part of the fulfilment of a legal contract between a supplier and a customer. From this perspective we are not only interested in the footprint of mobile phones in

the payments landscape, but also the topography of that landscape in terms of the actors involved, the nature of the payment and the value to the customer of different levels of payment automation. It is suggested that adding this value dimension (Osterwalder, 2005; Ondrus et al., 2005) helps to conceptualise mobile commerce in the context of micro-economic transactions in public, commercial and social interactions.

The structure of this paper is as follows. Firstly, we provide an overview of the payments industry and why the potential of mobile technology has not (yet) translated into innovative payment instruments. The specific issues surrounding the adoption of mobile payments are then discussed. Based on research in this domain we then describe the dimensions that may be used to delineate the different payment service offerings and scenarios, and from this an integration framework is presented that may be used to investigate the relationship between payment service offerings and the associated value proposition from a customer perspective. The final section discusses the theoretical implications of this paper and its relevance to existing research.

2. Inertia in the payments industry

Traditionally, the transfer of value from payer to receiver, along with the associated risk, is managed by a small number of highly centralised intermediaries (banks). Funds are transferred from the payer's bank account to the receiver's bank account via a number of physical or electronic payment systems that check each payment against terrorist lists, money laundering lists, credit limit lists, etc. The key value of these centralised systems is managing the risk of account holder liquidity and fraud, and complying with international law, as stipulated by individual countries and supra national organisations. The cost of managing this risk is recouped by levying "interchange fees" on users of these payment instruments, merchants and consumers. A successful business model has thus built up around the use of payment cards, which involves charging merchants and ultimately customers for the facility and convenience of using particular payment instruments. The perceived value for the customer is access to a universally accepted payment instrument, and instant access to significant lines of credit.

The revenues generated from the provision of payment services have been estimated at \$900bn, representing 25-30% of total bank revenues. Reluctance to move away from a winning formula no doubt constitutes the principle barrier to faster integration of mobile technology into the payments ecosystem, but also an opportunity for innovation. Three additional factors contribute to the inertia in the evolution of traditional payments services, related to technical skills, customer expectations and management culture. Firstly, many retail banks run back office payment processing systems that are so old that Universities are now being solicited to create programming modules focused on legacy development environments such as Cobol, PL1 and RPG, such is the reliance on these systems and the associated scarcity of skilled resources. The costs of re-writing back-end payment processing modules is therefore prohibitive. Currently internet banking could be characterised as providing a web-based front end to account information that is embedded in legacy applications, without addressing any other requirements that customers might have with respect to liquidity control, budgeting or access to alternative products. Legacy banking systems were simply not designed to empower customers in this way.

Secondly, the virtualisation of banking and the sense of empowerment among smart phone application users have whetted the account holder's appetite for a different relationship with his or her bank. Providing on-line visibility of customer accounts is the first step in controlling expenditure, supporting customer requirements for flexible payment instruments is the second. Ultimately the integration of bank accounts with planning tools will empower customers to manage their finances in a more pro-active way. Exhibitors at the Finovate Europe 2011 event in London showed a marked tendency towards personal finance management products (PFM), with payment instruments being seen as lifestyle commodities influenced by customer perceptions of value as communicated in social networks.

Thirdly, it is likely that management in both the commercial and retail banking sectors do not have experience of the newer forms of collaborative business models familiar to service providers in the new payments ecosystem.

Particularly with respect to mobility and payments, it is clear that financial institutions, in order to achieve critical mass, will have to collaborate with new intermediaries such as hardware vendors, payment solution providers and trusted service managers. The next section discusses the adoption of mobile payments and the likely shape of such a new ecosystem.

3. Adoption of mobile payments

A mobile payment is any payment where a mobile device is used to initiate, authorize and confirm a transfer of value in return for goods and services (Pousttchi, 2003; Au and Kauffman, 2008). Mobile payments emerged in the 2000.s, with early successes in the sale of mobile content and services such as ring tones and logos. Later, mobile payments were suggested as an alternative for micro- payments at point-of-sales systems, where the use of cash had been declining for many years. Many mobile and electronic payment solutions have been introduced ever since, but most of them have failed or have had a low penetration rate (Mallat, 2007; Dahlberg et al. 2008). The "chicken and egg" situation for emerging payment models means that enough merchants need to be on-board with any new solution for it to catch on with consumers, but in order to be appealing to merchants there must be a critical mass of consumers interested. Lee et al. (2004) refer to mobile payment liquidity as the extent to which it is accepted by sellers and therefore adopted by customers. Au and Kauffman (2008) refer to the theory of network externalities to explain value creation in the networked economy, suggesting that the value of such services to banks and their customers will increase as the network grows. One such failure is the Dancoin (our translation) in Denmark, which did not reach critical mass of users, either payers or merchants. Standardisation and technology maturity have equally been highlighted as key requirements for expansion of mobile payments (Mallat et al., 2004; Lee et al., 2004).

So, while the most popular payment instruments are still cash, debit and credit cards (Dahlberg et al, 2008) with smart cards being the most serious challenger to traditional cash (Dahlberg and Mallat, 2002), the ways to make contactless payments and especially mobile payments are increasing. When looking into the future, companies and experts agree that the mobile phone is the technical device that they will try to turn into the new wallet, mainly because of the diffusion of mobile phones, which no other technical device can match, but also due to the fact that most of us carry our mobile phones with us most of the time (Olsen et al., 2011). If the mobile phone as e-wallet succeeds it will very likely be at the expense of traditional payment instruments. But it is also a possibility that the mobile wallet will simply become a new way of entering the current card and account-based payment services (Dahlberg et al., 2008).

Contini et al. (2011) describe the mobile ecosystem as a complex set of interconnected entities and relationships which interact to form a stable functioning payments system, with participants including financial institutions, money service providers, handset makers, technology service providers, mobile network operators, mobile virtual network operators, merchants and consumers. Internationally, national governments have individually pledged support to developing electronic payment capabilities as part of the broader adoption of e-Government capabilities, while in Europe, much of this development has been driven by the establishment of SEPA (Single Euro Payments Area). At the same time the European competition agency tends to inhibit banks collaborating on new payment solutions, since this might be perceived as creating barriers to trade.

Understanding the importance of these emerging solutions is the key motivation for developing an integration framework for mobile payments. Webster and Watson (2002) describe how theory in the IS field evolves from ad-hoc classification systems through taxonomies to conceptual frameworks. There is a need for a "robust analysis framework" (Kauffman and Walden, 2001; Au and Kauffman, 2008) to abstract meaning from the myriad technology offerings, and indeed to differentiate between business value and technology capability. Practitioners and academics require an abstracted view of the business requirements and their solutions in order to design lasting solutions. The next section outlines the dimensions that can be used to build this abstracted view.

4. Classifying the dimensions of mobile payments

Mobile payment solutions may be described by a number of attributes that relate either to the process or the technology of making a payment. The process dimension refers to what type of payment is being made, and crucially should include the notion of customer value. The technology dimensions describe how a payment process works, and typically involves the integration of a number of physical and virtual payment instruments.

4.1 The value dimension

The value dimension, described as a market perspective by Ondrus et al. (2005), or as a value taker perspective by Kauffman and Walden (2001), relates to both customer benefits and needs respectively. Ondrus et al. (2005) suggest that it is the failure to address the demand issues that undermine many payment service offerings. It is therefore suggested that the customer demand (value) dimension be used to characterise mobile payments. This dimension will calibrate customer value across a "consumer to merchant axis" (Ondrus et al., 2005; Dahlberg et al., 2007). Clearly the time and location independence afforded by the mobile phone user is an advantage (Mallat, 2007; Kim et al., 2010). Indeed the "anytime, anywhere" accessibility of mobile phones increases merchant access to location specific consumers, thereby potentially instigating demand and increasing sales opportunities, but not necessarily creating customer value. Customer value, for example, might be providing the payer with visibility of, and direct access to, alternative payment execution options, as well as related decision support information such as account balances, loyalty points, discounts and special terms. The customer value here is created through the information value as distinct from the mobility value (Gump and Pousttchi, 2005).

For the purposes of this paper, the value proposition is considered to include the context or scenario (Kreyer et al., 2003) of the purchase and payment transaction. This covers the nature of the goods or service being purchased, where the payment is being made, and who is involved. The nature of the purchase covers, for example, the purchase of physical and digital goods, the payment of utility bills or the purchase of on-line services. The procurement of physical goods by individuals or organisations may be considered to be part of the supply chain. Supermarket shopping for groceries and household goods (B2C) or raw material purchases by manufacturers (B2B) has the characteristics of being repetitive, subject to scrutiny on price, and sensitive in terms of lead time. The point of sale may be physical, virtual or both.

All businesses have payment processes for overhead expenditure related to personnel (payroll, tax and expenses), rent, maintenance, catering or hygiene services. Utility payments could be considered to include energy supply, refuse services, tax, banking services, digital network services and digital content.

Transportation related services include local transit tickets, parking, automobile taxation, and fuel, holiday, and airline payments. Consumer goods might include white goods, electronic equipment, computer equipment, clothing and furniture. Leisure and entertainment payments include cinema tickets, concert and event ticketing, use of sports facilities, vending machines and access to public amenities. Digital content includes phone credit, digital media (music, video, newspapers, and books), gift vouchers and virtual gaming products. Person to person (P2P) payments might include payments to tradespeople, babysitters, and home-helpers, local and cross border remittances, micro- payments and micro-finance. Charity or fundraising donations constitute a section of "person to non- profit" organisation payments (P2NP). Social and Government payments include welfare, pension and health payments (G2C).

On the other hand, the context of the payment also distinguishes the location of the payment and the actors involved. For example, payments may be made from a mobile phone at a point of sale, from a mobile phone remotely, in person at a bank branch, in person at an ATM or payment kiosk, in person at a post office or credit union branch. Payments may be sent by post, or made over the phone, via a digital TV service, or through a gaming or digital content interface such as iTunes. Bill payment services may be made on-line or via physical points of sale such as PayZone and PayPoint. On-line payments may be made via electronic wallets such as PayPal or Boku. Economic definitions of commercial actors include shareholders, debtors, creditors, managers, employees, community and government (Au and Kaufmann, 2008). The purpose of this dimension is to

understand where value is being consumed, and by whom.

4.2 The integration dimension

The second dimension for mobile payment attributes relates to the products, instruments or technologies through which the payments are executed. These attributes describe how the payment is processed, and are independent of either the transaction types or the payment channels discussed above. This virtualisation axis calibrates the extent to which payment execution has been mobilised (Gummpp and Pousttchi, 2005) using information technology. Technology or product related aspects of the mobile payments landscape are more "inward" looking (Dahlberg et al., 2008), defining customer value making (Kauffman and Walden, 2001), as distinct from value taking. This corresponds to the service provision (vertical axis) on the framework described by Dahlberg et al. (2007). The purpose of this dimension is to understand where value is being created, and by whom.

The payment products include traditional physical instruments such as cash, cheques, coupons, pre-paid gift cards, postal orders and bank drafts. Credit transfer instruments include credit cards, debit cards, Electronic Funds Transfer, Direct Debits and Standing Orders. Mobile phone related instruments include bill to carrier account, bill to credit card account and bill to current account (ACH). Pre-loaded virtual instruments include electronic money accounts, virtual gift cards, and virtual loyalty cards. Payment authorisation options include signatures, passwords (on-line, SMS), PIN number, Chip, card user verification services, voice authorisation or biometric methods. The degree to which the payment is integrated into an enterprise or domain driven process defines an interface dimension including Buy-now, Accounts Receivable, Accounts Payable, Payroll, Expense disbursement, Bank reconciliation or treasury management. Geographic scope for payments may include proximity, local, national, European or global. Payments across different currencies should include exchange rate calculations. The account types from which payments are drawn include unbanked customers, post office accounts, credit union accounts bank accounts (current, credit, deposit, savings), commercial or merchant accounts, e-Money accounts, Mobile Network Operator customer accounts, merchant loyalty account and digital media accounts. Account funding mechanisms include cash loading, SMS with top-up, Direct Debit, wire transfer, electronic funds transfer, credit transfer by SO/DD from third party bank account, remittances and on-line e-Money transfer. Device connectivity options include credit cards, such as Visa / Mastercard, debit cards, such as Maestro / Cirrus / Laser, Internet (TCP/IP, GPS, WiFi), Bluetooth and NFC. Clearing and settlement options include paper (e.g. IPCC), electronic (e.g. IREPCC), Credit Card and ATM. Timing of payment execution may be in advance, at moment of purchase, days or weeks after purchase.

4.3 An initial framework for mobile payments integration

Drawing on the discussion regarding the dimensions of payment integration (virtualisation) and value (merchant to consumer axis) in the previous section, a framework is proposed to conceptualise the position of mobile payments within the greater context of electronic payments. This framework is presented in Figure 1. In this framework, payment integration is conceptualised as an on-going process of reconciling demand with supply. The degree to which payment processes are integrated, or supported by electronic means, is recognised as an economic lever in the value proposition to customers. The information that is valuable for consumers (as individuals or enterprise buyers) in making payments is defined along two dimensions, one related to the level of visibility of purchase and payment information, and one related to control of the transfer of value.

The purchase control dimension maps the gradation between a commitment to purchase and settlement of the amount due. This axis is temporal, left to right, representing the stages between the commitment to purchase and the actual transfer of value (ultimately there is value in offering a consumer the ability to intervene at these stages). The payment integration dimension refers to the degree to which the attributes of payments (both supply and demand related) are known and communicated, and represents a gradation from traditional physical payments instruments to increasingly virtual payment instruments. It is only with the virtualisation of payment information that it is possible compare the cost of a planned expenditure with the actual availability of funds

(budget).

The quadrants represent stages in the value proposition to consumers in electronic payments. The purchase (bottom left) quadrant represents the buyer's commitment to purchase. With traditional physical payments instruments, visibility of budget information is limited. Information that would be valuable to the buyer at this point relates to product supply (for example, price, discount or loyalty credits), but also related to the available consumer budget. How this information is provided is a question of integration. The budget visibility quadrant (top left) represents the degree to which visibility of available funds can be provided. This may also entail electronic decision support tools to inform the consumer's decision to purchase.

The settlement quadrant (bottom, right) represents the actual transfer of value from the consumer to the merchant, which may be automated or happen in stages. Payment in cash is instant settlement whereas payment by card is deferred settlement. The payment visibility quadrant (top right) represents the degree to which settlement information is available. This visibility provides the merchant with his confirmed revenue and the customer with his real time budget position.

5. Application of the framework to mobile payments pilot project

The illustrative case study is a five month NFC (Near Field Communication) enabled m-payment project that goes live in February 2012. The scope of the project includes payment for goods at the point of sale, loyalty points and physical access to buildings and rooms via an embedded staff card. The project began as a concept to evaluate if students and staff could "leave their wallets at home" by embedding typical wallet functions into the phone. Purchases at a point of sale are provided via a virtual wallet maintained on-line. The virtual wallet, which is based on a standard pre-paid debit card, can be topped up at specific points of sale (with cash) or on-line (with access to other on-line funds). Participants will also be able to make peer-to-peer payments between on-line wallets.

The researchers have been working with a Mobile Network Operator (MNO) on the scope of the project. The goal is to investigate customer adoption and customer retention issues in a controlled environment. Aimed at retail payments at any of the 20 points of sale on campus (cafés, restaurants, bars, convenience stores, newsagents), this research is aimed at the micro-payment area (sub-euro15 expenditure). The research objective is to understand the acceptability of contactless payments and associated customer behaviour over a period of 20 weeks from February till the end of June in 2012. Participants in the pilot have been recruited such that there is a balance in their consumer profiles. A range of ages was sought by including both students (18-23 years old) and staff (30-60 years old). Certain staff participants were sought because of their role as stakeholders, for example, senior university management, buildings and estates staff, security staff and merchant staff involved in point of sale activities. A gender balance was sought across the sample, and for students there was a breakdown between those living at home and those living in rented accommodation. As possibly the most price sensitive segment of the consumer market, it was important to understand the constraints that students face in terms of disposable income. In addition, certain criteria related to experience to date with smartphones, with a balance sought between those who were already users of smartphones and those who were not. As the project involved the distribution of new NFC enabled handsets to participants, there was a breakdown between participants who wished to retain their existing mobile phone and contract. In these cases, participants are offered a new SIM card and mobile number for the project.

The researchers screened and selected over 225 participants who were characterised as "Generation Y".

Participants were also selected from naturally formed groups (i.e. second year undergraduate students) as such groups tend to be more relaxed and at ease in conversations. At the pre-launch phase, which took place in November 2011, six focus group interviews consisting of four to eight participants were carried out. The researchers were also engaged in the preceding stakeholder meetings with merchants, mobile network operator, and the NFC terminal provider; and face-to-face interviews with each of stakeholders are on-going. Individual interviews rather than focus group interviews with the two participating merchants are judged to be

preferable as they are competitors on the college campus and both provide food and retail services to over 17,000 students on a daily basis.

The project aims to provide valuable insight and experience in cashless payments in a restricted environment that mimics quite adequately the retail environment of the high street. Ultimately the project will extend to businesses in the vicinity of campus, which are all subject to the same ebbs and flows of business as campus based merchants. The key issue for campus points of sale are that congestion tends to build at hourly intervals due to the nature of the timetable for lectures. This means that on the hour, every hour, all the points of sale experience an influx of customers. The potential benefit of a mobile payment option in terms of convenience and speed is therefore significant.

5.1 A case study approach

A case study approach is employed in this study, since it permits the researchers to examine the phenomenon in its natural setting and employ multiple methods of data collection. Case studies are also suitable for researching an area in which there is a paucity of research and to finding answers to "how" and "why" questions (Benbasat et al., 1987). At each phase, the researchers use focus group interviews and on-line surveys. The focus group method is suitable for qualitative data gathering (Calder, 1977) and has been employed in previous mobile service studies (e.g. Mallat, 2006), which demonstrates its suitability in this study (Jarvenpaa and Lang, 2005; Garfield, 2005). Using multiple methods of data collection techniques to study the same phenomenon provides the opportunity to triangulate, thus reinforcing the conclusions of the study (Benbasat et al., 1987). An important aspect of this research is the longitudinal nature of the study, where spending habits and user acceptance may be observed over an extended period. One of the key questions for MNO.s regarding mobile payments adoption has been how to stimulate continued usage over time, after the "novelty effect" wears off. Loyalty programmes are a key driver in this area, but also the observed value to consumers of using this new payment channel. The value that a consumer perceives in using the phone for payment must be reflected in a merchant willingness to promote the channel, and this project provides a stage on which to study the motivations and business model of the infrastructure providers in this regard (MNO, payment acquirer, issuing bank, acquiring bank and merchant).

The project consists of three distinct data gathering phases: pre-launch (Nov 2011), mid-pilot (April 2012), and end-pilot (June). The purpose of the pre-launch phase was to understand the anticipatory context: awareness and perceptions around payments, understand impacts and reactions during the launch phase. The purpose of the mid-launch phase is to track and evaluate usage and behaviour: gain insights into functionality and performance of the system, identification of drivers and barriers to adoption. The purpose of the late-launch phase is system evaluation and generation of developmental insights: establish where improvements can be made to enhance consideration and usage of the system.

5.2 Preliminary findings

During the focus group interviews at the pre-launch stage, participants were invited to discuss the value-propositions been offered by the use of the NFC enabled phone and the service providers (e.g. research question 1). Key themes that were discussed included: their understanding of the m- payment concept, the value propositions that would entice them to a) migrate and b) remain with a new mobile network operator, and the barriers that would prohibit them from participating in the trial. Participants strongly favoured customer loyalty schemes that offered a range of options, instant or short-term rewards, and the ability to use the rewards with other branded goods and services. Key barriers to participating in the project included: top-up charges, the use of a low-end smartphone due to its limited functionality and the fear of technical errors at the point-of-sale once the project is live.

Interviews with the merchants revealed that they anticipate the potential of m-payments in terms of it reducing the time and cost required to managing physical cash, as well as, a faster through-put at peak service times (e.g. 12pm-2pm). Merchants expressed a high level of commitment to the project on condition that they did not

incur the cost of installing the NFC enabled terminals at the 31 point-of-sales located on campuses. Yet, even at the prelaunch phase, the issue of cost has remained "unelaborated" and could be a decisive factor in the next phase of the project.

Specific to the question the value dimension, the researchers have identified that infrastructure management is a central issue that requires diplomacy, coordination and the need for a shared terminology amongst the integration partners. The integration partners in the project include: the mobile network operator, handset and operating system manufacturer, the SIM card manufacturer and SIM card integration team, the mobile wallet application developers, the funding account and card issuer, the payment transaction processor, the NFC terminal provider, and IT technicians from the host university.

Key to the adoption by merchants of a new payment channel is the associated interchange costs. In the pilot study, the MNO is providing a new way of accessing traditional payment rails, but not intervening in terms of the contract between the merchant and the payment processor, meaning that there is little or no advantage for the merchant to promote this method. Furthermore, although loyalty is perceived as key in retaining m-payment customers, this is equally seen by the MNO as an aspect of the customer relationship to the retail outlet, instead of being considered as loyalty to a merchant and payment channel. These findings present an early indication that the cultural barriers to new business model development are significant, with players inevitably burdened by their inherited perceptions of customer value propositions. The next stages of the research study will yield a wealth of observations that will allow us to develop an intricate understanding of the dynamics of m-payment solutions.

These early findings provide a basis for judging the applicability of the integration framework, see Figure 2 for an illustration. The value proposition for m-payments in the pilot case is presented as a series of steps in a specific customer scenario, where a consumer pays for coffees and snacks at a point of sale for a total bill of euro10. The various steps in the purchase and settlement process are mapped on the framework. The customer pays by mobile phone, which is convenient and merits loyalty points from the merchant, but incurs top-up costs. For merchants, providing customers with a fast and convenient way to pay for goods increases throughput at peak busy periods, thereby increasing revenue. The payment authorisation transaction, involving a card network, an acquiring bank and an issuing bank, each charging for the processing of the transaction, results in a total charge of 22c to the merchant for the euro10 spend. These figures are based on standard interchange fees for credit card transactions of 2.16% (the case study is based on the use of a pre-paid debit card from one of the major networks for account funding, the interchange rates to be applied are not available at the time of writing the paper). Using this account also incurs a top-up charge for the customer of 48c per top-up. The settlement of the euro10 transaction therefore results in the merchant account being credited with euro9.78 (retail price minus interchange), the customer being debited for euro10.48 (cost of goods plus top-up charge). The value proposition for consumers and merchants is unconvincing based on this case study. Customers will be penalised by using this payment instrument, although clearly they may recoup some of the costs through loyalty points. However, given the number of partners involved, and their cultural background, it is not clear how the ownership of the customer relationship will be negotiated. Equally, in this case merchants are paying (dearly) for the right to offer their customers a new payment channel. In fact the only winners in this scenario are the banks who acquire a new source of interchange fees for little infrastructure outlay. The only initial cost to the card issuers and acquirers are the marketing and promotional costs associated with setting up the new virtual wallet accounts, the development resources to test the new terminals, and any overheads associated with new merchant ID.s. These are the same costs associated with the sign-up of any new customer base. The card network equally invests initially in the development of the wallet and security integration.

One limitation with the framework is that it does not show the recovery of value by the customer in terms of loyalty points. Although it is clear that usage of this payment channel will be stimulated through the use of loyalty points, it is not clear in this case what the customer relationship is between merchants, mobile operator,

banks and customer. Incredibly, the mobile operator expects that the merchants should offer increased loyalty points for the use of the new payment channel, while simultaneously expecting the merchant to bear the burden on interchange costs with the banks. Underpinning the case are the twin assumptions that in order to use a mobile phone for payment, the customer must open a new bank account, and, secondly, that both the customer and merchant are prepared to pay a premium to allow payment by mobile phone. One of the most significant outcomes of this research will be the testing of these assumptions, which are undoubtedly inherited from the business models that apply to existing payment instruments.

Neither does the framework show the other payment use case envisaged in the pilot study, peer-to-peer payments. The cost of making a payment between two mobile wallets was not available at the time of study. The success of such payment schemes in developing countries, particularly those where populations were unbanked, suggests that this model will be of significance where there are strong economic constraints on budget. Students are astute shoppers, and often underbanked, so it will be of interest to the researchers to gather data on the adoption and customisation of peer-to-peer payment features during the project.

6. Discussion and conclusion

The proposed integrated payment framework highlights the difference and relationship between payment integration and value proposition. It also strives to increase theoretical parsimony by integration of previous literature, such as Ondrus et al. (2005), Mallat (2007), and Kim et al., (2010) into a two by two matrix. The validity of the framework can be assessed by three particular properties: the integration of the framework (logical coherence), its practical and theoretical relevance, and its relative explanatory power (Glaser, 1978). These properties are derived from Glaser's (1978) work on theoretical sensitivity and have been applied in previous research (Hedman and Kalling, 2003). The logical coherence is addressed in the previous section and will not be further addressed here.

There are both practical and theoretical aspects to the relevance of the framework. Firstly, it facilitates discussion of the nature of information required by consumers and merchants and the associated value they may place on the automation and visibility afforded by payment integration. It was shown, for example, that despite the lack of a convincing value proposition to customers (Ondrus et al., 2005), mobile operators are not well disposed to designing such propositions, being focused on extracting revenue from only one piece of the mobile payment transaction. Disintermediation of services is unsurprisingly perceived by consumers as an opportunity for more charges to the consumer to support the multiple partners involved in the provision of the service. This might be considered paradoxical from the point of view of the technical integration occurring (sharing of customer data, sharing of payment transaction information). A customer might be forgiven for expecting that technology driven integration should drive greater value for the consumer at the transactional level.

For example, visibility of available budget to spend could be an extremely valuable feature for consumers in making purchase decisions, particularly in periods of economic pressure, but the implementation of this feature may imply sophisticated design scenarios, with each of the integration partners ultimately looking for some compensation for that effort. In the case studied, the virtual wallet on the phone will be updated with an outstanding balance, giving customers a reactivity that was hitherto impossible with legacy payment instruments. Indeed this visibility is of significant value for consumers, for which they may be prepared to pay a premium. The visibility provided by traditional credit card networks for both consumers and merchants is significantly less automated, but merchants will sacrifice margins for the convenience afforded to consumers, who in turn are prepared to pay for the line of credit. However, it is not clear that merchants will understand the value proposition for the new mobile payment channel, and particularly how it relates to existing channels. The lack of forethought concerning the value proposition (for both customers and merchants) in advance of the technical implementation appears to be hampering the success of the project.

The application of the m-payment integration framework for the case study necessitated some extensions to

allow for the different players on the value dimension. As well as consumers and merchants, it was useful to depict also the mobile operator and banks. The value proposition is summarised on the horizontal dimension by summarising the key benefits and costs for each of the players involved. In this sense the theoretical framework has been enriched through contact with the field. Further research incorporating other use cases for mobile payments should validate what other players and attributes would be required to coherently portray the value proposition for dis-intermediated payments. Of particular interest, for example, would be the notion of payments being made via the mobile network account, that is, the use of phone credit to pay for products and services other than calls and texts.

The interfaces between the quadrants, represented by the arrows, are points where integration decisions may be conceptualised. For example, the use of cash versus direct debits versus online payment can be positioned along the payment integration axis. The question of mobile payments involving settlement from a bank account, credit card account or carrier account could also be represented on this axis. In the case studied, settlement was via a pre-paid debit card account, but there would be value in using the framework to make these settlements and funding account choices visible. As mentioned above, the value of visibility and control afforded by mobile payment transactions requires further research, as there are probably different use cases in which the increased visibility is considered worth paying for.

The framework provided a basis on which to consider the contribution of payment integration to the value proposition for consumers and merchants. On the one hand, mobile payment solution providers offer convenience based services to consumers, and, on the other, consumers have control and visibility requirements related to planning for and making payments. As we have seen in the case study however, the crucial nature of the value proposition needs to be addressed as much as the technology solution. The framework allows for the consideration of both these dimensions, and in so doing, provides a unique approach to highlighting the key questions underpinning the adoption of technology in a commercial environment. The framework is extremely meaningful for the players in the payments ecosystem: financial institutions, payment solution providers, merchants, mobile network operators and, ultimately, consumers. Using the framework, the evaluation of innovative payment technologies can take place in the context of actual customer and merchant value. The framework is developed to conceptualise the driving forces in the mobile payments industry, in that sense it builds on the existing body of theoretical work (for example, Au and Kauffman, 2008; Ondrus et al., 2005, Mallat, 2007, and Kim et al., 2010). Furthermore, it is felt that the framework brings to centre stage the notion of customer value discussed in such literature.

Further research on this topic should entail validating the framework empirically on a range of different emergent payment scenarios, for instance Google wallet or bio-metric payments. Such research should aim to clarify the collaboration decisions for players in the market for mobile payments. Notably, the framework should provide a basis upon which infrastructure partners might engage in meaningful debate around the costs to consumers and merchants of making mobile payments. On the basis of these collaboration discussions, real progress in the provision of consumer oriented payment services that leverage the "anytime, anywhere" visibility and control of the mobile phone might be envisaged. Research should focus less on gathering consumer data on adoption patterns and technical features, and more on facilitating the discussions between the collaborative partners, and on developing a vocabulary for the conceptualisation of what value in payments means for a consumer, a merchant, an infrastructure provider or a financial institution.

Acknowledgements

This work was in part carried with the support of Copenhagen Finance IT Region (www.cfir.dk) and was funded by the Danish Enterprise and Construction Authority grant number ERDFH-09-0026. Any opinions, findings, interpretations, conclusions or recommendations expressed in this paper are those of its authors and do not represent the views of the funding agencies.

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Subject: Studies;Integration;Models;Customer services;Consumers;Banking industry;Smartphones;Risk management;Payment systems;Business models;Research;Innovations;Cellular telephones;Technology adoption;Mobile commerce;Lines of credit;Portable computers

Location: Ireland

Classification: 9130: Experiment/theoretical treatment5240: Software &systems9175: Western Europe33411: Computer and Peripheral Equipment Manufacturing

Publication title: Electronic Journal of Information Systems Evaluation

Volume: 15

Issue: 1

Pagination: 13-24

Number of pages: 12

Publication year: 2012

Publication date: Jan 2012

Publisher: Academic Conferences International Limited

Place of publication: Reading

Country of publication: United Kingdom

Publication subject: Business And Economics

Source type: Scholarly Journals

Language of publication: English

Document type: Feature

Document feature: Diagrams;References

ProQuest document ID: 1017885790

Document URL: <https://dialog.proquest.com/professional/docview/1017885790?accountid=131444>

Copyright: Copyright Academic Conferences International Limited Jan 2012

First available: 2012-05-31

Updates: 2012-05-31

Database: 2 databasesView listHide listABI/INFORM® Professional Advanced, Publicly Available Content

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				Application Number	17/654,732
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				Application Number	17/654,732
				Filing Date	March 14, 2022
				First Named Inventor	Paresh K. Patel
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				Application Number	17/654,732
				Filing Date	March 14, 2022
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				Application Number	17/654,732	
				Filing Date	March 14, 2022	
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PE2E SEARCH - Search History (Prior Art)

There are no Prior Art searches to show.

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	0	(mobile AND device AND proximity AND payment AND accept\$ AND machine\$1 AND trigge\$ AND unit AND transceiver AND dispens\$ AND identif\$).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2022/08/31 01:54 PM

New Options in Wireless Payments

Author: HOFFMAN, KAREN EPPER

Publication info: Internet World 7.7: 37. Penton Media, Inc., Penton Business Media, Inc. and their subsidiaries. (Apr 1, 2001)

[ProQuest document link](#)

Abstract (English): Electronic commerce on mobile devices is expected to grow rapidly, with Ericsson predicting a \$120 billion m-commerce market by 2008. Banks, telecom carriers, transaction-processing software vendors, payment service providers and retailers are all scrambling to determine how to enable consumers to make payments on cell phones and PDAs. 'Beamed' payment sends instructions authorized by a user's password or PIN from a wireless device to a point-of-sale terminal. Wireless-enabled versions of conventional Internet e-commerce sites are more popular. Developers are emphasizing server-based wallets containing pre-authorized accounts as the most secure payment method. Other methods include authorizing payment via smartcards or adding the purchases to the user's mobile-phone bill, but neither system has become popular in the US. American E-commerce players only recently began to consider wireless payment infrastructures. Several companies are testing the technology, but adoption rates remain low.

THERE'S MUCH MORE TO SHOPping on the go than translating the fixed Internet to wireless. So as wireless usage takes off, more and more banks, the telecommunications carriers, transactions software and service providers, device manufacturers, and retailers are scrambling to figure out how to best enable mobile payment methods for consumers--along with what is in it for them when they do.

"It is absolutely critical that companies have mobile commerce on the road map," says Julie Ferguson, vice president of emerging technology at ClearCommerce, which sells software that automates transaction processing over the Internet. "It's just like the Web of five years ago."

Links: [Check USPTO-STIC for Availability](#)

Full text: THERE'S MUCH MORE TO SHOPping on the go than translating the fixed Internet to wireless. So as wireless usage takes off, more and more banks, the telecommunications carriers, transactions software and service providers, device manufacturers, and retailers are scrambling to figure out how to best enable mobile payment methods for consumers--along with what is in it for them when they do.

"It is absolutely critical that companies have mobile commerce on the road map," says Julie Ferguson, vice president of emerging technology at ClearCommerce, which sells software that automates transaction processing over the Internet. "It's just like the Web of five years ago."

The notion of "beaming" a payment for a soda or wirelessly purchasing a pair of airline tickets with the mere push of a cell phone button is more than just an appealing way to lure a consumer into a purchase. Mobile-payment developments have the potential to reshape, retail commerce, not only by enabling consumers to buy things through their mobile devices and perhaps encouraging them to buy more, but by expanding how businesses accept payments for goods and services.

So it isn't surprising that some see the market on the verge of taking off, even in the United States, where wireless standards and interoperability are lagging.

Ericsson predicts that global m-commerce revenue will top \$120 billion by 2008. Meanwhile, market-research firm Celent Communications predicts that the value of mobile payments worldwide will grow at a 260-percent clip annually from 1999 to 2004, while the number of payments will climb 186 percent--far outpacing the 96-percent growth in the number of Net transactions during the same period.

Right now, mobile payment systems vary around the world in terms of how payments are initiated, what sort of security or authentication process is used, and how the payment is settled. In the U.S., a couple of different schemes are emerging.

There is the "beamed" payment, where payment instructions, usually authorized by a user's password or personal identification number, are sent by infrared from a wireless device to a payment terminal. This contactless transaction would take the place of the swipe of a credit or debit card or the exchange of cash and may be the first idea that comes to mind when you think of "wirelessly" paying for goods or services. Another, more popular, version of mobile purchasing is more akin to buying on the fixed Net. A customer would access a retailer's site through their Web-enabled phone or personal digital assistant and find the item they want to purchase. Similarly, the customer might be served an advertisement or coupon for a particular item that he or she can buy automatically, click a "pay" button and enter either a password, a PIN number, or some other form of authentication, such as a voice command. The payment is either pulled from a pre-authorized account at the provider or served from an electronic wallet sitting on the device or on a server at the bank or carrier. Most wireless payment methods under development focus on a server-based wallet, which developers think is more secure.

Other methods call for the charges to be added to a user's mobile phone bill or require the use of a chip card to store payment information or a digital certificate that secures the transaction. But so far, these methods have garnered scant attention in the U.S., where smart card use is limited and consumers are not used to having other charges attached to their phone bills.

Most U.S.-based players only recently began getting serious about implementing a wireless-payments infrastructure. According to Trevor Healy, vice president and general manager for m-commerce for Trintech Group PLC, an electronic payments company based in Ireland that has worked with banks and carriers on both sides of the Atlantic, "They've only just woken up, but it's going to accelerate very quickly."

Last summer in Boulder, Colo., NextCard and SkyGo embarked on one of the first U.S. m-commerce and advertising tests, sending national and local advertising and branding messages to the WAP-enabled phones of 1,000 participants over a period of four months. Consumers could buy wirelessly from an online merchant or with local advertisers not outfitted for wireless payment. They were enticed to come in for sales or to use virtual coupons on their cell phones.

And last May, wireless service provider Aether Systems Inc. made a deal with First Data Corp., a third-party processor of credit card transactions, to develop wireless-payment applications. Rod Stambaugh, general manager for the wireless commerce group at Aether, said the company will launch m-wallet and shopping services in the second quarter. Mobile users will be able to access a bank- or carrier-branded portal where they can shop.

Like most developers, Aether features a system with a server-based wallet. All the customer's payment information is sitting at the bank or at the carrier's host. When a consumer wants to pay for something, the wallet steps in and prefills the purchase order and payment information.

"It's really very similar to the Internet and probably even easier," Stambaugh says.

Aether is also developing a peer-to-peer payment clearinghouse that will enable a payment sent from one system to be received by another, without the need for separate accounts with each system.

P2P payments leader PayPal Inc. has yet to see nearly as much interest in its wireless products as in its fixed Net payment system, however. According to spokesman Vincent Sollitto, by early January, only 10,000 customers had used PayPal's wireless product for WAP - and Internet-enabled phones, which the company released last June, compared with 5.6 million customers for its wired Internet product.

The low adoption rate may have a lot to do with the limited number of Internet-ready phones and the limitations of PayPal's wireless service itself. Customers can only send money, request payments, and check balances using a wireless device. They still have to use a PC to open or fund accounts.

While wireless payments on the whole have yet to take the U.S. by storm, other quasiwireless systems like Confinity's Palm application have captured a following. The principle of these systems is largely the same, but the execution differs from emerging wireless payments, primarily because they most often utilize a radio

frequency to signal a transaction and don't transact in real time. For example, using the Mobil Speed-pass, a customer can wave a key fob--shaped token past a terminal at the gas pump to pay for a tank of gas in a hurry. Many transit authorities have also instituted contactless payment systems similar to New Jersey and New York's EZ Pass: A commuter mounts a small plastic device to their inner windshield, which signals the toll booth as the car passes through and debits the user's account for the amount of the toll.

Palm has thrown its own hat in the m-commerce ring. In January, the PDA manufacturer entered into a deal with VeriFone, the Hewlett-Packard Co. payments unit, to enable payments through the Palm. Instead of swiping a credit card at the checkout counter of a store, Palm users would beam their payment authorization to a terminal secured by elliptic curve technology from Certicom Corp.; the purchase would be debited from the customer's wallet on the bank's or carrier's server.

The companies began piloting the system in Spain in early January with 100 participants and ten merchants; a larger pilot in California with 1,000 users was planned for February. If all goes well, says Jean-Marc Sarat, senior director of corporate development for Palm, users will be able to download the application widely as early as the third quarter of 2001, and payment capabilities will be built in to future versions of the Palm Pilot and offered to other Palm OS licensees.

Sarat thinks Palm's loyal user base will embrace the PDA for mobile payments because its form factor will display receipts and-coupons more clearly. "It's really painful to enter all that information on a phone [keypad]," he says. "The phone is only the communications link."

Other companies seem to agree that the Palm offers benefits in mobile payment, on the merchant's end as well as the consumer's. In November, EPX, a payment-services company, debuted PDA Pay, which integrated the company's payment-processing system into a PalmVlix, making it a handheld transaction terminal. The device has a built-in card swipe and a cradle that fits on the device like a sleeve.

PDA Pay can enable mobile workers to run a credit card payment while they're out in the field. "The way we see it," says Maureen Loftus, vice president of business development and strategy for EPX, "this is an application people want today, not some vision someone has."

Similarly, using Palms to accept wireless transactions plays into WIRCA's strategy. The Overland Park, Mo., wireless-payments network was launched more than a year ago to develop m-commerce, and it is conducting a pilot in the Kansas City area. Customers can pay for a dinner out or a tank of gas using their cell phones, while the seller uses a Palm VII to wirelessly plug into the system to verify their transactions.

WIRCA chief executive officer Howard Gerson plans to expand his network in the second quarter and add capabilities to allow for person-to-person wireless payment. He thinks his service will be handy for those who "forget their wallets but never forget their phones."

Many wireless-payments developers say that while the phone and the PDA can work when it comes to making wireless payments, the ideal device for m-commerce is still to come: one that would combine the best of both platforms.

Emerging technologies like the breathlessly awaited Bluetooth, the highly touted shortwave wireless technology, also have great potential to shake up the nascent wireless-payments space. Executives from Aether, EPX and Palm all say they plan to embrace Bluetooth for their payments transmissions as soon as the technology is market ready.

The more significant change in the new wireless payments landscape may be in who processes and controls those payments. It is no secret that non-bank payment processors and other unconventional new players have gradually gained ground in the payments industry over the years. The advent of mobile payments could exacerbate this trend by putting more power in the hands of the carriers.

"[There's] tension between carriers and banks," says John Fallon, director of wireless for Baltimore Technologies PLC. "[Carriers] want to get more involved in the transactions rather than being a bit pipe for transactions. They want to be able to provide a choice of payment options or authenticate transactions."

Kevin Ritschel, senior product manager of emerging markets for VeriFone, thinks greater involvement from the carriers is inevitable. "Any time a new gateway comes along, there's a new gatekeeper wanting a toll," he says. "Carriers are seeing this as a way to offset lowering fees on airtime. It's clearly the opportunity that a lot of carriers have seen, and that a lot of financial institutions see as a very real threat"

An interesting example of this is Finnish telecommunications operator Sonera Corp., which has been conducting a pilot of its own Mobile Pay service for more than a year and a half in Finland and Sweden without the involvement of banks. Users can buy vending-machine products, fast food, or even car washes using their WAP- and SMS-enabled phones, says Rachna Korhonen, U.S. sales director for Sonera Mobile Pay. Sonera processes the wireless payment for the "few thousand" users, who store their credit card information at the company.

The service charges a "small," undisclosed transaction fee to consumers and merchants, but Korhonen says that the 25 to 40 percent rise in the use of wireless payment-enabled services points up the success of the project so far. She adds that Sonera is looking to expand soon, offering services in Europe that would allow consumers to buy even more expensive goods, like airline tickets. Sonera is actively looking to license Mobile Pay in the U.S.

Operators aren't the only ones well positioned to take their place in wireless payments. With the help of Trintech's Payware, Korean electronics giant Samsung has created a "virtual credit card," an extension of its \$15.7 billion traditional credit card business, one of the biggest in Korea. Given the explosive growth of m-commerce in Asia, Samsung could become a huge force in wireless payments there.

Despite limitations, the wireless-payment infrastructure is likely to grow, fueled by the proliferation of mobile devices and consumers' ever-growing desire to buy things whenever and wherever they like.

Karen Epper Hoffman is an independent writer and industry analyst.

Subject: E-commerce -- Product development;Electronic commerce;Electronic commerce -- Product development;Internet services -- Product development;Online payment services;Online services -- Product development;Product development;Wireless Internet access

Location: United States

Identifier (keyword): General, Trade

Advertising classification: 85: Industry Market Data

Event classification: 361: Services development

NAICS classification: 514191: On-Line Information Services

Product classification: 4811520: Videotex &Teletext

SIC classification: 4822: Telegraph &other communications

Alternate title: Company Business and Marketing, Electronic commerce on mobile devices is expected to grow rapidly, with Ericsson predicting a \$120 billion m-commerce market by 2008

Publication title: Internet World

Volume: 7

Issue: 7

Pagination: 37

Publication date: Apr 1, 2001

Publisher: Penton Media, Inc., Penton Business Media, Inc. and their subsidiaries

Journal subject: Business, Computers and office automation industries, High technology industry, Telecommunications industry

ISSN: 1097-8291

Journal code: 0DXS

Source type: Magazine/Journal

Language of publication: English

Document type: Magazine/Journal

Source attribution: Gale PROMT, © Publisher specific

Accession number: 72516749

Document URL: <https://dialog.proquest.com/professional/docview/668180410?accountid=131444>

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Date created: 2010-05-11

First available: 2010-07-24

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BIB DATA SHEET

CONFIRMATION NO. 5715

SERIAL NUMBER 17/654,732	FILING or 371(c) DATE 03/14/2022 RULE	CLASS 705	GROUP ART UNIT 3698	ATTORNEY DOCKET NO. 104402-5065-US		
APPLICANTS PAYRANGE INC., Portland, OR; INVENTORS Paresh K. Patel, Portland, OR; ** CONTINUING DATA ***** This application is a CON of 17/147,305 01/12/2021 which is a CON of 15/603,400 05/23/2017 PAT 10891614 which is a CON of 14/458,199 08/12/2014 PAT 9659296 which is a CIP of 14/456,683 08/11/2014 PAT 9256873 which is a CON of 14/335,762 07/18/2014 PAT 9547859 which is a CON of 14/214,644 03/14/2014 PAT 8856045 which claims benefit of 61/917,936 12/18/2013 and is a CIP of 29/477,025 12/18/2013 PAT D755183 ** FOREIGN APPLICATIONS ***** ** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** ** SMALL ENTITY ** 03/17/2022						
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/FRANTZY POINVIL/</u> Examiner's Signature		☐ Met after Allowance Initials	STATE OR COUNTRY OR	SHEETS DRAWINGS 45	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 3
ADDRESS Morgan, Lewis & Bockius LLP (PA) 1400 Page Mill Road Palo Alto, CA 94304-1124 UNITED STATES						
TITLE METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS						
FILING FEE RECEIVED 830	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:		☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit			



ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
17/654,732

RECEIPT DATE / TIME
09/16/2022 03:34:16 PM ET

ATTORNEY DOCKET #
104402-5065-US

Title of Invention

METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 5715

FILED BY Benjamin Pezzner

PATENT CENTER # 60976325

FILING DATE 03/14/2022

CUSTOMER # 24341

FIRST NAMED INVENTOR Paresh K. Patel

CORRESPONDENCE ADDRESS -

AUTHORIZED BY -

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
web85b.pdf	3	Issue Fee Payment (PTO-85B)	62 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
web85b.pdf	C8DBC9608627ED63EF46B9C800562CF5D8498774E37EDFAFE 1ED4D14FE8FEAC1AA84C9D816B7965947F5D36A730F691C8F 6169B06A980DEFC110FD53FE22CB48

by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

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ISSUE FEE TRANSMITTAL FORM

APPLICATION #
17654732

FILING DATE
03/14/2022

FIRST NAMED INVENTOR
Paresh Patel

ATTORNEY DOCKET #
104402-5065-US

Title of Invention

METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

Application Information

APPLICATION TYPE Nonprovisional Application under 35 USC 111(a)

DATE DUE 12/16/2022

CONFIRMATION # 5715

ISSUE FEE DUE \$ 600

EXAMINER FRANTZY POINVIL

PUBLICATION DUE \$ 0

GROUP ART UNIT 3698

TOTAL FEES DUE \$600

CLASS - SUBCLASS 705/044000

PREV. PAID FEE \$ 0

ENTITY STATUS Small

1. CHANGE OF CORRESPONDENCE ADDRESS AND/OR INDICATION OF FEE ADDRESS (37 CFR 1.33 & 1.363)

Correspondence Address

CURRENT ADDRESS

Maintenance Fee Address

CURRENT ADDRESS



Change of correspondence address requested, system generated AIA/122-PC form attached



Fee address indication requested, system generated SB/47-PC form attached

2. ENTITY STATUS

Change in Entity Status

NEW STATUS

3. THE FOLLOWING FEES ARE SUBMITTED



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Publication Fee



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6. ASSIGNEE NAME(S) AND RESIDENCE DATA TO BE PRINTED

NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

PAYRANGE INC.

Portland, OR UNITED STATES

Corporation

Signature

I certify, in accordance with 37 CFR 1.4(d)(4) that I am an attorney or agent registered to practice before the Patent and Trademark Office who has filed and has been granted power of attorney in this application. I also certify that this Fee(s) Transmittal form is being transmitted to the USPTO via Patent Center on the date indicated below.

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/Benjamin Pezzner/	Benjamin Pezzner	70711	09/16/2022



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ELECTRONIC PAYMENT RECEIPT

APPLICATION #
17/654,732

RECEIPT DATE / TIME
09/16/2022 03:34:16 PM ET

ATTORNEY DOCKET #
104402-5065-US

Title of Invention

METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 5715

FILED BY Benjamin Pezzner

PATENT CENTER # 60976325

AUTHORIZED BY -

CUSTOMER # 24341

FILING DATE 03/14/2022

CORRESPONDENCE ADDRESS -

FIRST NAMED INVENTOR Paresh K. Patel

Payment Information

PAYMENT METHOD
CARD / 8177

PAYMENT TRANSACTION ID
E20229FF34454938

PAYMENT AUTHORIZED BY
Benjamin Pezzner

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2501	UTILITY ISSUE FEE	600.00	1	600.00
TOTAL AMOUNT:				\$600.00

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C.

Petitioner Exhibit 1002-2134

371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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Sep 16, 2022 03:32:14 AM

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Application	Document	Mailroom Date	Attorney Docket No.
17654732	NOA	09/16/2022	104402-5065-US
	892	09/16/2022	104402-5065-US
	1449	09/16/2022	104402-5065-US

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PATENT APPLICATION INFORMATION RETRIEVAL SYSTEM

INFORMATION DISCLOSURE STATEMENT BY APPLICANT Substitute for Form 1449-PTO				Electronically filed August 21, 2022		
				Application Number	17/654,732	
				Filing Date	March 14, 2022	
				First Named Inventor	Paresh K. Patel	
				Art Unit	3698	
				Examiner Name	Frantzy Poinvil	
Sheet	6	of	11	Attorney Docket Number		104402-5065-US

Change(s) applied
to document,
/S.D./
9/21/2022

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Examiner Signature	/FRANTZY POINVIL/	Date Considered	08/31/2022
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Petitioner Exhibit 1002-2137

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /F.P/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT Substitute for Form 1449-PTO				Electronically filed August 21, 2022		
				Application Number	17/654,732	
				Filing Date	March 14, 2022	
				First Named Inventor	Paresh K. Patel	
				Art Unit	3698	
				Examiner Name	Frantzy Poinvil	
Sheet	2	of	11	Attorney Docket Number		104402-5065-US

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Examiner Signature	/FRANTZY POINVIL/	Date Considered	08/31/2022
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Petitioner Exhibit 1002-2138

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/654,732	10/25/2022	11481772	104402-5065-US	5715

24341 7590 10/05/2022
Morgan, Lewis & Bockius LLP (PA)
1400 Page Mill Road
Palo Alto, CA 94304-1124

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

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INVENTOR(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional inventors):

Paresh K. Patel, Portland, OR;

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

PAYRANGE INC., Portland, OR;

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From: PAIR_eOfficeAction@uspto.gov
Cc: PAIR_eOfficeAction@uspto.gov
Subject: Private PAIR Correspondence Notification for Customer Number 24341

Oct 06, 2022 03:31:51 AM

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Application	Document	Mailroom Date	Attorney Docket No.
17654732	ISSUE.NTF	10/05/2022	104402-5065-US

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KIOSOFT TECHNOLOGIES, LLC and TECHTREX, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

PGR2023-00042
Patent 11,481,772 B2

Mailed: August 24, 2023

Before DAVEINA B. WILLIAMS, *Trial Paralegal*

NOTICE OF FILING DATE ACCORDED TO PETITION
AND
TIME FOR FILING PATENT OWNER PRELIMINARY RESPONSE

The petition for *inter partes* review in the above proceeding has been
accorded the filing date of July 25, 2023.

Patent Owner may file a preliminary response to the petition no later than three months from the date of this notice. The preliminary response is limited to setting forth the reasons why the requested review should not be instituted. Patent Owner may also file an election to waive the preliminary response to expedite the proceeding. For more information, please consult the Office Patent Trial Practice Guide, 77 Fed. Reg. 48756 (Aug. 14, 2012), which is available on the Board Web site at <http://www.uspto.gov/PTAB>.

Patent Owner is advised of the requirement to submit mandatory notice information under 37 C.F.R. § 42.8(a)(2) within 21 days of service of the petition.

The parties are encouraged to use the heading on the first page of this Notice for all future filings in the proceeding.

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If there are any questions pertaining to this notice, please contact the Patent Trial and Appeal Board at 571-272-7822.

PGR2023-00042
Patent 11,481,772 B2

For PETITIONER:
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NOTICE CONCERNING ALTERNATIVE DISPUTE RESOLUTION (ADR)

The Patent Trial and Appeal Board (PTAB) strongly encourages parties who are considering settlement to consider alternative dispute resolution as a means of settling the issues that may be raised in an AIA trial proceeding. Many AIA trials are settled prior to a Final Written Decision. Those considering settlement may wish to consider alternative dispute resolution techniques early in a proceeding to produce a quicker, mutually agreeable resolution of a dispute or to at least narrow the scope of matters in dispute. Alternative dispute resolution has the potential to save parties time and money.

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CPR INSTITUTE FOR DISPUTE RESOLUTION	AMERICAN INTELLECTUAL PROPERTY LAW ASSOCIATION (AIPLA)	AMERICAN ARBITRATION ASSOCIATION (AAA)	WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)	AMERICAN BAR ASSOCIATION (ABA)
Telephone: (212) 949-6490	Telephone: (703) 415-0780	Telephone: (212) 484-3266	Telephone: 41 22 338 9111	Telephone : (202) 662-1000
Fax: (212) 949-8859	Fax: (703) 415-0786	Fax: (212) 307-4387	Fax: 41 22 733 5428	N/A
575 Lexington Ave New York, NY 10022	241 18th Street, South, Suite 700 Arlington, VA 22202	140 West 51st Street New York, NY 10020	34, chemin des Colombettes CH-1211 Geneva 20, Switzerland	1050 Connecticut Ave, NW Washington D.C. 20036
www.cpradr.org	www.aipla.org	www.adr.org	www.wipo.int	www.americanbar.org

If parties to an AIA trial proceeding consider using alternative dispute resolution, the PTAB would like to know whether the parties ultimately decided to engage in alternative dispute resolution and the reasons why or why not. If the parties actually engage in alternative dispute resolution, the PTAB would be interested to learn what mechanism (e.g., arbitration, mediation, etc.) was used and the general result. Such a statement from the

PGR2023-00042

Patent 11,481,772 B2

parties is not required but would be helpful to the PTAB in assessing the value of alternative dispute resolution to parties involved in AIA trial proceedings. To report an experience with ADR, please forward a summary of the particulars to the following email address:
PTAB_ADR_Comments@uspto.gov

Patent Trial and Appeal Board

A petition has been filed in Patent Number 11,481,772 B2, Application Number 17/654,732 on July 25, 2023.

The AIA Review Number is PGR2023-00042.

To view the documents filed in this petition, go to <https://ptab.uspto.gov> and Search for the AIA Review Number.

- Enter your search criteria on the “Search PTAB” page
- Type in the AIA Review Number or Patent Number
- You will need to answer the CAPTCHA to prove that you are not a robot.
- Click on the “Search” button
- The search results will appear identifying the AIA Review Number
- Click on the “View Documents” button
- A pop up window will appear with a list of documents
- Click on the “Download” button to download the document.

Questions regarding this notice should be directed to the Patent Trial and Appeal Board at 571-272-7822.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CSC SERVICEWORKS, INC.,
Petitioner,

v.

PAYRANGE, INC.,
Patent Owner.

Case IPR2023-01449
Patent 11,481,772

Mailed: October 18, 2023

Before Paula Conn, *Trial Paralegal*

NOTICE OF FILING DATE ACCORDED TO PETITION
AND
TIME FOR FILING PATENT OWNER PRELIMINARY RESPONSE

The petition for inter partes review filed in the above proceeding has been accorded the filing date of October 9, 2023.

Patent Owner may file a preliminary response to the petition no later than three months from the date of this notice. The preliminary response is limited to setting forth the reasons why the requested review should not be instituted. Patent Owner may also file an election to waive the preliminary

response to expedite the proceeding. For more information, please consult the Office Patent Trial Practice Guide, 77 Fed. Reg. 48756 (Aug. 14, 2012), which is available on the Board Web site at <http://www.uspto.gov/PTAB>.

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^[1] Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

Case IPR2023-01449
Patent No. 11,481,772

PETITIONER:

Jason Mudd
Mark Schafer
Kyle Friesen
SHOOK, HARDY & BACON
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kfriesen@shb.com

PATENT OWNER:

Morgan, Lewis & Bockius LLP
1400 Page Mill Road
Palo Alto, CA 94304

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(ADR)**

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Case IPR2023-01449
Patent No. 11,481,772

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The United States Patent and Trademark Office
PATENT TRIAL AND APPEAL BOARD



A petition has been filed in Patent Number 11,481,772, Application Number 17/654,732 on October 9, 2023.

The Case Number is IPR2023-01449.

To view the documents filed in this petition, go to <https://ptab.uspto.gov>.

Use the Search PTAB tab and enter the Patent Number or the Trial or Case Number and select the Search button.

Questions regarding this notice should be directed to the Patent Trial and Appeal Board at 571-272-7822.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

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v.

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Patent Owner.

Case IPR2023-01449
Patent 11,481,772

Mailed: October 18, 2023

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Case IPR2023-01449
Patent No. 11,481,772

PETITIONER:

Jason Mudd
Mark Schafer
Kyle Friesen
SHOOK, HARDY & BACON
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mschafer@shb.com
kfriesen@shb.com

PATENT OWNER:

Morgan, Lewis & Bockius LLP
1400 Page Mill Road
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Case IPR2023-01449
Patent No. 11,481,772

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
17/654,732

RECEIPT DATE / TIME
11/22/2023 03:41:11 PM Z ET

ATTORNEY DOCKET #
104402-5065-US

Title of Invention

METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # 11481772

CONFIRMATION # 5715

FILED BY S. Olivier

PATENT CENTER # 63360871

FILING DATE 03/14/2022

CUSTOMER # 24341

FIRST NAMED INVENTOR Paresh K. Patel

CORRESPONDENCE ADDRESS -

AUTHORIZED BY Douglas Crisman

Documents

TOTAL DOCUMENTS: 1

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
104402-5065-US DisclaimeronaPatent.pdf	2	Statutory disclaimers per Manual of Patent Examining Procedure(MPEP) 1490.	218 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
104402-5065-US DisclaimeronaPatent.pdf	A3810CC3D1C63F0328059C735EBB2B00BEF1E347D2A65F82A 968DAA21ADCFDFD607ACCC2EDA2E6D99E2A179CD14DC618 57DFD576A8452AE02AE3D052C3631CB9

Petitioner Exhibit 1002-2160

by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

DISCLAIMER IN A PATENT UNDER 37 CFR 1.321(a)	
Name of Patentee PayRange Inc.	Docket Number (optional) 104402-5065-US
Patent Number 11,481,772 B2	Date Patent Issued October 25, 2022
Title of Invention METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS	
Patentee hereby disclaims: ☒ the following complete claim(s) in the above-identified patent: <u>1-6, 8-10 and 12-20</u>. ☐ the terminal part of the term of the above-identified patent beginning on the date: _____. ☐ the entire term of the above-identified patent. The disclaimer is binding on the patentee and its successors or assigns. The extent of patentee's ownership interest in the above-identified patent is: <u>100%</u>. The fee for this disclaimer is set forth in 37 CFR 1.20(d) and is being paid in the following manner: ☐ payment by the USPTO patent electronic filing system. ☒ the Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. <u>05-0310</u>. ☐ payment by credit card. Form PTO-2038 is attached. ☐ a check in the amount of the fee is enclosed. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on form PTO-2038. The undersigned is: ☐ patentee. If patentee is a juristic entity, the undersigned is authorized to act on behalf of the juristic entity. ☒ attorney or agent of record.	
Signature /Douglas J. Crisman/	Date November 22, 2023
Name (printed/typed) Douglas J. Crisman	Practitioner registration number 39,951
Note: See 37 CFR 1.4(d) for signature requirements and certifications.	

A Federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with an information collection subject to the requirements of the Paperwork Reduction Act of 1995, unless the information collection has a currently valid OMB Control Number. The OMB Control Number for this information collection is 0651-0031. Public burden for this form is estimated to average 12 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection. Send comments regarding this burden estimate or any other aspect of this information collection, including suggestions for reducing this burden to the Chief Administrative Officer, United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450 or email InformationCollection@uspto.gov. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. If filing the completed form by mail, send to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013). <https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf>

Routine uses of the information in this record may include disclosure to:

- 1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;
- 2) a federal, state, local, or international agency, in response to its request;
- 3) a contractor of the USPTO having need for the information in order to perform a contract;
- 4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;
- 5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;
- 6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;
- 7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;
- 8) another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c));
- 9) the Office of Personnel Management (OPM) for personnel research purposes; and
- 10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.



ELECTRONIC PAYMENT RECEIPT

APPLICATION #
17/654,732

RECEIPT DATE / TIME
11/22/2023 03:41:11 PM Z ET

ATTORNEY DOCKET #
104402-5065-US

Title of Invention

METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS

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under 35 USC 111(a)

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PATENT CENTER # 63360871

AUTHORIZED BY Douglas Crisman

CUSTOMER # 24341

FILING DATE 03/14/2022

CORRESPONDENCE ADDRESS -

FIRST NAMED INVENTOR Paresh K. Patel

Payment Information

PAYMENT METHOD
CARD / 9258

PAYMENT TRANSACTION ID
E2023ALF41598722

PAYMENT AUTHORIZED BY
S. Olivier

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2814	STATUTORY DISCLAIMER, INCLUDING TERMINAL DISCLAIMER	170.00	1	170.00
TOTAL AMOUNT:				\$170.00

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

KIOSOFT TECHNOLOGIES, LLC and TECHTREX, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

PGR2023-00042
Patent 11,481,772 B2

Before KEN B. BARRETT, MEREDITH C. PETRAVICK, and
GEORGE R. HOSKINS, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

DECISION
Settlement Prior to Institution of Trial
37 C.F.R. § 42.74

On February 5, 2024, pursuant to our authorization, Petitioners, KioSoft Technologies, Inc. and TechTrex, Inc., and Patent Owner, PayRange Inc., filed a Joint Motion to Dismiss this proceeding. Paper 7 (“Mot.”). With the Joint Motion, the parties filed a true and correct copy of their written settlement agreement memorializing the resolution of their disputes. Ex. 2002 (“Settlement Agreement”). The parties also filed a Joint Request that the Settlement Agreement be treated as confidential business information under 35 U.S.C. § 327(b) and 37 C.F.R. § 42.74(c). Paper 8.

In the Joint Motion, the parties represent that they have resolved their dispute with respect to U.S. Patent No. 11,481,772 B2. Mot. 1. Furthermore, the parties represent that they have agreed to terminate this proceeding and have no other collateral agreements or understandings in connection with, or in contemplation of, the termination of this proceeding. *Id.*

This proceeding is at an early stage, as the Board has not yet made a decision whether to institute a post-grant review. Under these circumstances, and in view of the parties’ representations in the Joint Motion, we determine that it is appropriate to terminate this proceeding.

We also determine that good cause exists for the Settlement Agreement to be treated as confidential business information under 35 U.S.C. § 327(b) and 37 C.F.R. § 42.74(c).

Accordingly, it is:

ORDERED that the Joint Motion to Dismiss is *granted*, and this proceeding is *terminated*; and

FURTHER ORDERED that the parties' Joint Request is *granted*, and the Settlement Agreement (Exhibit 2002) be treated as confidential business information and kept separate from the patent file.

PGR2023-00042
Patent 11,481,772 B2

PETITIONER:

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Disclaimer

11,481,772 B2 - Paresh K. Patel, Portland, OR (US). METHOD AND SYSTEM FOR PRESENTING REPRESENTATIONS OF PAYMENT ACCEPTING UNIT EVENTS. Patent dated October 25, 2022. Disclaimer filed November 22, 2023, by the assignee, PayRange Inc.

I hereby disclaim the following complete Claims 1-6, 8-10 and 12-20 of said patent.

(Official Gazette, March 26, 2024)

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CSC SERVICEWORKS, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

IPR2023-01449
Patent 11,481,772 B2

Before KEN B. BARRETT, MEREDITH C. PETRAVICK, and
GEORGE R. HOSKINS, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

CSC ServiceWorks, Inc. (“Petitioner”) filed a Petition requesting *inter partes* review of claims 1–6 and 8–20 of U.S. Patent No. 11,481,772 B2 (Ex. 1001, “the ’772 patent”). Paper 1 (“Pet.”). PayRange Inc. (“Patent Owner”) filed a Preliminary Response (Paper 7 (“Prelim. Resp.”)) and disclaimed claims 1–6, 8–10, and 12–20 (Ex. 2017). Only claim 11, thus, remains challenged in this proceeding.

With our authorization (Ex. 3001), Petitioner filed a Preliminary Reply (Paper 10 (“Prelim. Reply”)) and Patent Owner filed a Preliminary Sur-reply (Paper 11 (“Prelim. Sur-Reply”)).

Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless the information presented in the petition “shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

After considering the Petition, the Preliminary Response, the Preliminary Reply, the Preliminary Sur-reply, and the evidence of record, we determine the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of the challenged claim of the ’772 patent.

Accordingly, we institute an *inter partes* review of claim 11 of the ’772 patent on the ground asserted in the Petition.

B. *Disclaimer of Claims 1–6, 8–10, and 12–20*

A “patent owner may file a statutory disclaimer under 35 U.S.C. 253(a) in compliance with § 1.321(a) of this chapter, disclaiming one or more claims in the patent. No *inter partes* review will be instituted based on

disclaimed claims.” 37 C.F.R. § 42.107(e). A disclaimer under 35 U.S.C. § 253(a) is “considered as part of the original patent” as of the date on which it is “recorded” in the U.S. Patent and Trademark Office. 35 U.S.C. § 253(a). For a disclaimer to be “recorded” in the Office, the document filed by the patent owner must:

(1) Be signed by the patentee, or an attorney or agent of record;

(2) Identify the patent and complete claim or claims, or term being disclaimed. A disclaimer which is not a disclaimer of a complete claim or claims, or term will be refused recordation;

(3) State the present extent of patentee’s ownership interest in the patent; and

(4) Be accompanied by the fee set forth in [37 C.F.R.] § 1.20(d).

37 C.F.R. § 1.321(a); *see also Vectra Fitness, Inc. v. TNWK Corp.*, 162 F.3d 1379, 1382 (Fed. Cir. 1998) (holding that a § 253 disclaimer is “recorded” on the date that the Office receives a disclaimer meeting the requirements of 37 C.F.R. § 1.321(a), and that no further action is required in the Office).

Here, Patent Owner filed a statutory disclaimer of claims 1–6, 8–10, and 12–20 of the ’772 patent. Ex. 2017; *see* Prelim. Resp. 1. Based on our review of Exhibit 2017, we determine that a disclaimer of claims 1–6, 8–10, and 12–20 of the ’772 patent under 35 U.S.C. § 253(a) has been filed with the Office as of November 22, 2023. Based on the information in the Office’s public record concerning the ’772 patent, we find that the disclaimer complies with the above-listed requirements of 37 C.F.R. § 1.321(a). Because claims 1–6, 8–10, and 12–20 have been disclaimed under 35 U.S.C. § 253(a), in compliance with 37 C.F.R. § 1.321(a), we do not

reach Petitioner's challenges to claims 1–6, 8–10, and 12–20. As a result, the sole remaining challenged claim is claim 11.

C. Real Parties-In-Interest

Petitioner identifies itself, CSC ServiceWorks, Inc., as the real party-in-interest. Pet. 93. Patent Owner identifies itself, PayRange Inc., as the real party-in-interest. Paper 9, 2.

Patent Owner argues that the Petition should be denied because the Petition fails to identify KioSoft Technologies, LLC (“KioSoft”) as a real-party-in-interest, as required by 35 U.S.C. § 312 (*see also* 37 C.F.R. § 42.8 (a)(1), (b)(1)).¹ Prelim. Resp. 4–11; Prelim. Sur-reply 1–7.

The Board's precedential decision *SharkNinja Operating LLC v. iRobot Corp.*, IPR2020-00734, Paper 11 (PTAB Oct. 6, 2020) (“*SharkNinja*”) held that it best serves the Office's interests in cost and efficiency to not resolve an RPI issue when “it would not create a time bar or estoppel under 35 U.S.C. § 315” in that proceeding. *SharkNinja*, Paper 11; *see also Unified Patents, LLC v. MemoryWeb, LLC*, IPR2021-01413, Paper 76 at (USPTO Director May 22, 2023) (non-precedential). We do not address whether KioSoft is an unnamed real-party-in-interest because, even if it was, it would not create a time bar or estoppel under 35 U.S.C. § 315.

¹ Patent Owner additionally requests that we impose the sanction of dismissal of the Petition under 37 C.F.R. § 42.12. Prelim. Resp. 10–11; Prelim. Sur-reply 6–7. Under 37 C.F.R. § 42.11(d)(2), a motion for sanctions must be made separately and a party must seek authorization from the Board prior to filing a motion for sanctions, as required by 37 C.F.R. § 42.20. We, thus, do not reach Patent Owner's request for sanctions.

D. Related Matters

Petitioner and Patent Owner identify the following related court proceeding:

PayRange Inc. v. CSC ServiceWorks, Inc., Case No. 1:23-cv-00278 (D. Del.)

Pet. 93; Paper 9, 2.

Patent Owner additionally identifies the following related court proceedings:

PayRange Inc. v. Kiosoft Techs., LLC, Case No. 1-20-cv-20970 (S.D. Fla.) (terminated)

PayRange Inc. v. KioSoft Techs., LLC, Case No. 1-20-cv-24342 (S.D. Fla.) (terminated)

PayRange Inc. v. CSC ServiceWorks, Inc., Case No. 1:22-cv-00502 (D. Del.)

Paper 9, 2–4.

Petitioner and Patent Owner identify the following related Board proceeding:

KioSoft Techs., LLC v. PayRange Inc., Case No. PGR2023-00042 (U.S. Patent No. 11,481,772) (terminated)

Pet. 93; Paper 9, 3–4.

Patent Owner additionally identifies the following related Board proceedings:

KioSoft Techs., LLC v. PayRange Inc., Case No. CBM2020-00026 (U.S. Patent No. 9,659,296)

KioSoft Techs., LLC v. PayRange Inc., Case No. IPR2021-00086 (U.S. Patent No. 9,659,296)

CSC ServiceWorks, Inc. v. PayRange Inc., Case No. IPR2023-01186 (U.S. Patent No. 8,856,045)

CSC ServiceWorks, Inc. v. PayRange Inc., Case No. IPR2023-01187 (U.S. Patent No. 10,438,208)

CSC ServiceWorks, Inc. v. PayRange Inc., Case No. IPR2023-01188
(U.S. Patent No. 10,891,608)

Kiosoft Techs., LLC v. PayRange Inc., Case No. PGR2021-00077
(U.S. Patent No. 10,719,833)

Kiosoft Techs., LLC v. PayRange Inc., Case No. PGR2021-00084
(U.S. Patent No. 10,891,608)

Kiosoft Techs., LLC v. PayRange Inc., Case No. PGR2021-00093
(U.S. Patent No. 10,891,614)

Kiosoft Techs., LLC v. PayRange Inc., Case No. PGR2022-00035
(U.S. Patent No. 11,074,580)

KioSoft Techs., LLC v. PayRange Inc., Case No. PGR2023-00045
(U.S. Patent No. 11,488,174) (terminated)

KioSoft Techs., LLC v. PayRange Inc., Case No. PGR2023-00050
(U.S. Patent No. 11,501,296) (terminated)

Paper 9, 2–4.

E. The '772 Patent (Ex. 1001)

The '772 patent, titled “Method and System for Presenting Representations of Payment Accepting Unit Events,” describes “a mobile-device-to-machine payment processing system for processing transactions over a non-persistent network connection.” Ex. 1001, code (54), 5:62–65. The mobile-device-to-machine payment processing system may be a “payment accepting unit” (i.e., “equipment that requires payment for the dispensing of products and/or services,” such as a vending machine, a parking meter, a toll booth, a laundromat washer and dryer, an arcade game, a kiosk, a photo booth, or a transit ticket dispensing machine). *Id.* at 1:54–65.

The '772 patent explains that some payment accepting units are capable of accepting cashless payments, such as “credit cards, debit cards, and alternative mobile device payment methods using, for example, smart

phones.” *Id.* at 6:42–50. However, “traditional payment accepting units that accept cashless payments . . . require a persistent connection to a network (wired or wireless) to facilitate the cashless payments.” *Id.* Thus, “[i]f the network connection to a traditional machine is temporarily interrupted, cashless payments will be temporarily unavailable. If the machine is located in a location where no network connection is available, cashless payment[] is not possible.” *Id.* at 6:56–60.

The ’772 patent purports to solve this network connectivity problem by having a user’s mobile device serve as an intermediary between the payment accepting unit and the network. *Id.* at 6:1–6, 6:60–62. The described system in the ’772 patent purportedly also minimizes or even eliminates user interaction with the mobile device. *Id.* at 6:60–66. For example, one feature that the payment accepting unit may possess is a “manual (swipe to pay) mode.” *Id.* at 6:10–11. When a user’s mobile device is brought within range of a payment accepting unit running this manual mode, a pre-installed mobile application on the mobile device automatically connects to the payment accepting unit. *Id.* at 7:15–18. The mobile device then connects to a server, which maintains a balance of the user’s funds and authorizes the use of these funds. *Id.* at 10:17–22, 11:28–40. From there, the mobile application may display the balance on the mobile device’s touchscreen, which the user then “swipes” to transfer payment to the payment accepting unit, “just as if cash was inserted in the machine 120 with the user inputting his selection on the payment accepting unit 120 and the payment accepting unit 120 dispensing the product or service.” *Id.* at 7:18–29 (reference numbers omitted).

F. Illustrative Claims

Petitioner challenges claim 11 of the '772 patent. Claim 11 depends from claim 1. Claims 1 and 11 are reproduced below, with the elements labeled in brackets.

[1(pre)]1. A method of presenting representations of payment accepting unit events, comprising:

[1(a)] at a mobile device with one or more processors, memory, one or more output devices including a display, and one or more radio transceivers:

[1(b)] identifying one or more payment accepting units in proximity to the mobile device that are available to accept payment from a mobile payment application executing on the mobile device, the identifying based at least in part on an identifier corresponding to the one or more payment accepting units, wherein the one or more payment accepting units are payment operated machines that accept payment for dispensing of products and/or services;

[1(c)] displaying a user interface of the mobile payment application on the display of the mobile device, the user interface being configured to display a visual indication of the one or more payment accepting units and accept user input to (i) receive selection by a user of the mobile device of an available payment accepting unit of the one or more payment accepting units and (ii) trigger payment by the mobile payment application for a transaction initiated by the user of the mobile device with the available payment accepting unit of the one or more payment accepting units;

[1(d)] establishing via the one or more radio transceivers a wireless communication path including the mobile device and the available payment accepting unit of the one or more payment accepting units;

[1(e)] after establishing the wireless communication path, enabling user interaction with the user interface of the

mobile payment application to complete the transaction;

[1(f)] exchanging information with the available payment accepting unit via the one or more radio transceivers, in conjunction with the transaction; and

[1(g)] after exchanging the information, displaying, on the display, an updated user interface of the mobile payment application to the user of the mobile device.

[11(a)] 11. The method of claim 1, wherein the user interface of the mobile payment application, after establishing the wireless communication path, includes:

[11(b)] a visual representation of the available payment accepting unit;

[11(c)] an indication of a prepared balance; and

[11(d)] an affordance that when slid, indicates the initiation of the transaction;

[11(e)] wherein the affordance is slid in response to receiving a user input of swipe on the affordance displayed on the display of the mobile device.

Ex. 1001, 47:2–41, 48:21–31.

G. Evidence

Name	Reference	Date	Exhibit
Zhou	U.S. Patent No. 7,458,510 B1	Issued Dec. 2, 2008	1004
Athwal	U.S. Patent App. Pub. No. 2003/0130902 A1	Published Jul. 10, 2003	1005
Low	U.S. Patent No. 10,210,501 B2	Issued Feb. 19, 2019	1006
Arora	U.S. Patent No. 9,898,884 B1	Issued Feb. 20, 2018	1007
Casey	U.S. Patent No. 8,255,323 B1	Issued Aug. 28, 2012	1008
Freeny	U.S. Patent No. 8,958,846 B2	Issued Feb. 17, 2015	1009

Petitioner also relies on the Declaration of B. Clifford Neuman, Ph.D. (Ex. 1003).

H. Asserted Ground

Petitioner asserts that claim 11 would have been unpatentable on the following ground:

Ground	Claim(s) Challenged	35 U.S.C. §	Basis
4	11	103	Zhou, Athwal, Low, Arora, Casey, Freeny

II. ANALYSIS

A. Request for Discretionary Denial

Patent Owner requests that we exercise discretion to deny the Petition under 35 U.S.C. § 314 because the '772 patent was also challenged in proceeding PGR2023-00042. Prelim. Resp. 11–16 (citing *General Plastic Indus. Co., Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19, 15–16 (precedential as to § II.B.4.i)).

After Patent Owner filed the Preliminary Response, the proceeding PGR2023-00042 was terminated prior to entry of an institution decision. *See* Paper 9, 4; PGR2023-00042, Paper 9. In light of the termination of PGR2023-00042, we authorized the parties to file additional arguments in a Preliminary Reply and Sur-reply. Ex. 3001. Patent Owner did not provide any additional argument concerning this issue in its Preliminary Sur-reply. Paper 11.

“Where the first-filed petition under [*General Plastic*] factor 1 was discretionarily denied or otherwise was not evaluated on the merits, factors 1–3 only weigh in favor of discretionary denial when there are ‘road-mapping’ concerns.” *Code200, UAB v. Bright Data, Ltd.*, IPR2022-00861, Paper 18 at 5 (PTAB Aug. 23, 2022) (precedential). Here, there are no road-mapping concerns because Petitioner filed the Petition here prior to Patent Owner filing any preliminary response in PGR2023-00042. Prelim. Reply 7.

Petitioner argues that *General Plastics* factors 4–7 are obviated because there are no longer multiple petitions pending against the ’772 patent. *Id.* Under the circumstances here, we agree. “[T]he Patent Owner’s concerns of fairness are outweighed by the benefits to the patent system of improving patent quality by reviewing the merits of the challenges raised in the petitions, which have not been addressed to date.” *Code200*, Paper 18 at 6.

Patent Owner’s request that we discretionarily deny the Petition under 35 U.S.C. § 314 because the ’772 patent was also challenged in proceeding PGR2023-00042 is denied.

B. Legal Standards

“In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review). Although we may indicate in this Decision that certain Patent Owner arguments are not persuasive, in doing so we do not shift the ultimate burden from Petitioner.

A claim is unpatentable under § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). “[W]hen a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.” *KSR*, 550 U.S. at 416 (citing *U.S. v. Adams*, 383 U.S. 39, 50–51 (1966)). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness (i.e., secondary considerations). *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Here, the present record contains no evidence of objective indicia of non-obviousness.

C. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art “would have had a bachelor’s degree in electrical engineering, computer engineering, computer science, or equivalent training, and approximately three years of experience with electronic payment systems, vending machine technologies, or distributed network systems,” and that “[a]dditional education can substitute for less work experience, and vice versa.” Pet. 12 (citing Ex. 1003 ¶¶ 18–20).

Patent Owner does not provide a description of the level of ordinary skill in the art. *See generally* Prelim. Resp.

For purposes of this Decision, we adopt Petitioner’s assessment of the level of ordinary skill in the art as it is consistent with the ’772 patent and the asserted prior art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

D. Claim Construction

In this *inter partes* review, we apply the same claim construction standard that would be used in a civil action under 35 U.S.C. § 282(b). 37 C.F.R. § 42.100(b). In applying this standard, we generally give claim terms their ordinary and customary meaning as would be understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *See id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Neither party provides an explicit construction of any claim terms. Petitioner asserts that “the terms of the challenged claims should be given their plain and ordinary meaning, and no terms require specific construction.” Pet. 13. Patent Owner asserts that “[n]o constructions are

necessary to deny institution because denial is warranted for numerous reasons that do not depend on claim construction.” Prelim. Resp. 3.

Except to the extent as discussed in our patentability analysis below, we do not need to construe any terms explicitly to reach our decision. *See Realtime Data LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

E. Ground 4: Obviousness over Zhou, Athwal, Low, Arora, Casey, and Freeny

1. Overview of Prior Art

a) Zhou (Ex. 1004)

Zhou is titled “Authentication of Automated Vending Machines by Wireless Communications Devices” and relates to conducting transactions between a wireless communications device and an automated vending machine and authenticating the vending machine prior to consummation of the transaction. Ex. 1004, code (54), 1:7–11, 2:15–18. Figure 1 of Zhou, reproduced below, is a schematic view of a wireless communications device used to conduct a transaction with a vending machine, a radio access network, and a vending machine authentication server which authenticates the vending machine for the wireless communications device. *Id.* at 3:43–47.

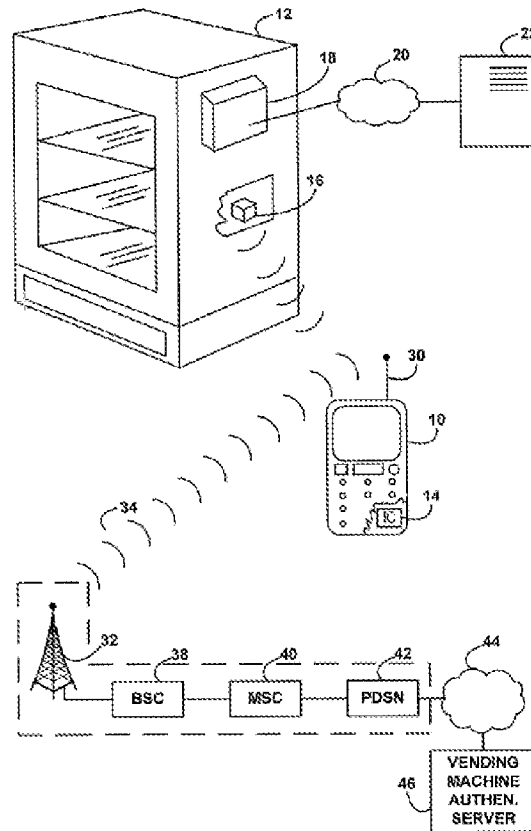


Fig. 1

Figure 1 of Zhou shows wireless communications device 10 that is used to conduct a transaction with vending machine 12. *Id.* at 3:61–63. Wireless communications device 10 includes first contactless communications means 14 (e.g., a contactless IC card, RFID transponder, WiFi, Bluetooth, or 802.11 transmitter/receiver, etc.) for communication with corresponding second contactless communications means 16 (e.g., contactless IC scanner/reader, RFID transponder, etc.) in vending machine 12. *Id.* at 3:67–4:9.

As described by Zhou, a user of wireless communications device 10 comes into close proximity with vending machine 12 and launches a vending machine application on wireless communications device 10. *Id.* at 5:29–31. The vending machine application presents various screen displays to the user

and prompts to facilitate a transaction with vending machine 12. *Id.* at 5:32–34. Vending machine scanner/reader 16 performs an authentication of IC card 14, and IC card 14 authenticates vending machine 12 to ensure that vending machine 12 is not a rogue machine used to steal personal identification or credit card information. *Id.* at 5:42–59, 1:59–61. Specifically, wireless device 10 obtains credential information (e.g., private key signature and digital certificate) from vending machine 12 in response to a challenge message and provides that information (signature, challenge, and certificate) to vending machine authentication server 46 for authentication. *Id.* at 5:66–6:5. Server 46 compares the credential information with information of authorized vending machines stored in a database or performs some other authorization routine, and provides an authentication response back to wireless device 10. *Id.* at 6:5–10. If the authentication is positive, then IC card 14 provides a prompt to the vending machine application indicating that vending machine 12 is approved and that completion of the transaction and transfer of sensitive payment information from wireless device 10 to vending machine 12 may safely proceed. *Id.* at 6:12–20; 7:8–10. Conversely, if authentication is negative, IC card 14 provides a prompt to the vending machine application indicating that vending machine 12 is not authorized or approved, in which case the user of wireless device 10 can abort the transaction without any transfer of sensitive payment information. *Id.* at 6:20–26, 7:3–8.

b) Athwal (Ex. 1005)

Athwal is titled “Short Range Wireless System” and relates to a mobile communication device (MCD), e.g., a mobile phone, operable to initiate and complete an electronic transaction with an electronic retail

system (ERS), e.g., a vending machine. Ex. 1005, code (54), ¶¶ 6, 8–10, 14. Athwal discloses that a customer initiates an electronic transaction by first performing a search for all available ERS in their vicinity from their MCD, which sends a wireless electronic signal (WES) inquiry to all ERS. *Id.* ¶ 17. All ERS respond with WES that convey detailed information such as their name, available products, and prices. *Id.* The MCD displays this information to the customer, who selects the desired product or service from the appropriate ERS. *Id.* The MCD then sends a WES to the appropriate ERS indicating a customer request to perform a transaction. *Id.* The ERS confirms availability of the desired product/service, calculates the cost, and sends an electronic bill to the MCD for the amount of the purchase via a WES. *Id.* The customer is prompted by the MCD to verify the purchase and to select the customer's account (e.g., credit, debit, etc.) that should be used to make the purchase. *Id.* The MCD then transmits payment account information and an authorization key (i.e., SIM chip ID or personal identification number) to the ERS via a WES. *Id.* The ERS performs the transaction and delivers the good/service to the customer. *Id.*

c) Low (Ex. 1006)

Low is titled “Electronic Payments to Non-Internet Connected Devices Systems and Methods” and relates to “wireless electronic payments to non-Internet connected machines through user devices.” Ex. 1006, code (54), 1:17–20. Low discloses a system that permits a user to select, purchase, and dispense products for sale at a vending machine, while using a user device such as a smart phone for electronic payment. *Id.* at 2:11–16, 5:19–22. Low discloses that multiple machines may send their unique

machine identifiers to the user device, such that the user is able to select one or more machines to purchase from. *Id.* at 2:25–28.

d) Arora (Ex. 1007)

Arora is titled “Method and System of Personal Vending” and discloses a “system and method for vending products to a customer that encompasses a group of vending machines managed by a vending company . . . and the use of a personal electronic device by the customer.” Ex. 1007, codes (54), (57). Arora describes using the customer’s personal electronic device and wireless communication to “direct the customer to the nearest qualified vending machine.” *Id.* at 2:58–59, 3:64–4:7. “Embodiments include the customer selecting either products or vending machines from a list of options provided via the user interface of the personal electronic device, wherein the list of options depends on the actual available inventory on vending machines co-located with customer, and the customer purchase history.” *Id.* at code (57).

e) Casey (Ex. 1008)

Casey is titled “Motion Based Payment Confirmation.” Ex. 1008, code (54). Casey discloses an electronic device having a graphical user interface with “one or more graphical elements that may be moved by a user to confirm or decline a payment transaction.” *Id.* at code (57).

f) Freeny (Ex. 1009)

Freeny is titled “Communication and Proximity Authorization Systems” and relates to a “pico pay phone system” that “allow[s] multiple wireless devices to access a single pay phone or other public kiosk communication unit designed to detect and recognize multiple wireless service providers’ signals and protocols at the same time.” Ex. 1009,

code (54), 1:24–29. Freeny discloses that a vending machine system can be activated either automatically or manually by a proximity authorization unit when a person is within a predetermined proximity distance of the vending machine system. *Id.* at 32:49–55. Freeny further discloses that the proximity authorization unit “can operate just like a smart card with the approved credit amount stored in the proximity authorization unit,” and that “the amount [of remaining approved cash] can be checked at any time by the user of the proximity authorization unit.” *Id.* at 37:60–63, 38:3–5.

2. *Analysis*

Petitioner contends that claim 11 is unpatentable over Zhou, Athwal, Low, Arora, Casey, and Freeny. Pet. 82–91. Because claim 11 depends from claim 1, we also consider Petitioner’s contention that claim 1 is unpatentable over Zhou, Athwal, and Low. *Id.* at 28–55.

After considering the Petition, the Preliminary Response, and all of the cited evidence of record, we determine that Petitioner sufficiently shows for the purposes of institution that all of limitations of claims 1 and 11 are taught by the combination of Zhou, Athwal, Low, Arora, Casey, and Freeny.

Patent Owner argues that certain limitations are not taught by the prior art. Prelim. Resp. 17–32. We address Patent Owner’s arguments in turn below.

a) Limitation 1(c)

Limitation 1(c) recites:

displaying a user interface of the mobile payment application on the display of the mobile device, the user interface being configured to . . . (ii) trigger payment by the mobile payment application for a transaction initiated by the user of the mobile device with the

available payment accepting unit of the one or more payment accepting units.

Ex. 1001, 47:17–26.

Patent Owner argues that Petitioner fails to show that Zhou or Zhou combined with Athwal teaches this limitation. Prelim. Resp. 17–22. Taking into account Patent Owner’s argument, on this record, we determine that Petitioner has sufficiently shown that the prior art teaches this limitation. Pet. 28–31, 47–48.

Zhou discloses that if a VENDING MACHINE APPROVED message is displayed on a vending machine application on a user’s device, then the user can complete the transaction. Ex. 1004, 7:8–10. “The vending machine application presents to the user via the device 10 display various screen displays and prompts to facilitate a transaction with the vending machine.” *Id.* at 5:32–34; *see also id.* at 4:52–58 (“graphical user interface module 72 for presentation of information on the display of the device 10 and receiving user input via the screen display . . .”), 6:12–20 (“provide a prompt to the vending machine application indicating that the vending machine is approved and that completion of the transaction and transfer of sensitive payment information . . . may safely proceed.”).

Based on Zhou’s disclosures, Dr. Neuman testifies²,

A POSITA would have understood that by completing a transaction, including transferring “sensitive payment

² Patent Owner argues that we should give Dr. Neuman’s testimony little weight because Dr. Neuman’s testimony merely repeats attorney argument in the Petition without providing corroboration of supporting technical analysis. Prelim. Resp. 18–20. At this stage of the proceeding, we determine that Dr. Neuman’s testimony is sufficient to show what one of ordinary skill in the art would have understood from the prior art and is

information,” the vending machine application (*i.e., mobile payment application*) of Zhou receives user input that “*trigger[s] payment by the mobile payment application for a transaction initiated by the user of the mobile device with the available payment accepting unit.*”

Ex. 1003 ¶ 89.

Given Zhou’s disclosures and Dr. Neuman’s testimony, we determine that Petitioner sufficiently shows that Zhou alone discloses this limitation.

See Pet. 47–48.

Additionally, Athwal discloses that after a consumer selects a product to buy, the consumer is presented with a bill to verify the purchase and to select an account to use to make the purchase. Ex. 1005 ¶ 17. After verification, payment information and an authorization key are transmitted to a vending machine. *Id.* Based on Athwal’s disclosures, Dr. Neuman testifies:

A POSITA would have understood a user selecting to transmit payment account information and an authorization to constitute receiving user input ‘*trigger[ing] payment by the mobile payment application for a transaction initiated by the user of the mobile device with the available payment accepting unit.*’

Ex. 1003 ¶ 90. Petitioner contends, relying on the testimony of Dr. Neuman that, “[i]mplementing the features of Athwal would have improved the security and efficiency, and reduced the cost, of Zhou’s method for conducting transactions with automated vending machines.” Pet. 28–31 (citing Ex. 1003 ¶¶ 50–51).

On this record, we are persuaded that Petitioner sufficiently shows that it would have been obvious to one of ordinary skill in the art to combine

sufficiently supported by the cited prior art itself. During trial, Patent Owner will have the opportunity to cross-examine Dr. Neuman.

Athwal's teaching of prompting a user to verify a purchase and select a payment account to trigger a payment with Zhou's teaching of presenting prompts on a screen display to facilitate a transaction. *See* Pet. 28–31 (citing Ex. 1003 ¶¶ 50–54).

b) Limitation 1(e)

Limitation 1(e) recites: “after establishing the wireless communication path, enabling user interaction with the user interface of the mobile payment application to complete the transaction.” Ex. 1001, 47:32–35.

Patent Owner argues that Petitioner fails to show that Zhou teaches this limitation. Prelim. Resp. 22–24. Taking into account Patent Owner's argument, on this record, we determine that Petitioner has sufficiently shown that the prior art teaches this limitation. Pet. 51–52.

Zhou teaches that when a user is near a vending machine, “[t]he vending machine application presents to the user via the device 10 display various screen displays and prompts to facilitate a transaction with the vending machine.” Ex. 1004, 5:32–34. After establishing wireless communication with the vending machine, the vending machine application obtains product information from the vending machine and presents it on the device's display. *Id.* at 5:35–41. After the vending machine is authenticated, the device presents prompts to the user to complete the transaction. *Id.* at 7:37–39.

On this record, we determine that Petitioner sufficiently shows that Zhou teaches limitation 1(e). *See* Ex. 1003 ¶¶ 96–97.

c) Limitation 1(g)

Limitation 1(g) recites: “after exchanging the information, displaying, on the display, an updated user interface of the mobile payment application to the user of the mobile device.” Ex. 1003, 47:39–41.

Patent Owner argues that Petitioner fails to show that Zhou or Zhou combined with Athwal teaches limitation 1(g). Prelim. Resp. 22–24. Taking into account Patent Owner’s argument, on this record, we determine that Petitioner has sufficiently shown that the prior art teaches this limitation. Pet. 28–31, 54–55.

Zhou “presents to the user via the device 10 display various screen displays and prompts to facilitate a transaction with the vending machine.” Ex. 1004, 5:32–34. After a vending machine is authenticated, the display shows “VENDING MACHINE APPROVED.” *Id.* at 7:1–14. Dr. Neuman testifies that: “A POSITA would have understood that these messages are dependent on the result of the authentication process, and thus must occur after exchanging the challenge and response information . . .” Ex. 1003 ¶ 102.

On this record, we determine that Petitioner sufficiently shows that Zhou discloses limitation 1(g). *See* Pet. 54.

Additionally, Athwal discloses a user of a mobile device receiving “positive feedback if the funds have transferred correctly.” Ex. 1005 ¶ 29. “If the ERSS [Electronic Retail System Software] has provided positive feedback, the ERS 120: a) Sends 5 a WES to the customers [sic] MCD 110 informing the customer that the transaction has been completed successfully; [and] b) Provides 5 an electronic receipt to the MCD 110.” Ex. 1005 ¶¶ 30–32.

Dr. Neuman testifies:

A POSITA would have understood sending a notification to the mobile device informing the customer that the transaction has successfully completed as well as an electronic receipt constitutes or renders obvious “*displaying . . . an updated user interface of the mobile payment application.*”

Ex. 1003 ¶ 103. Petitioner contends, relying on the testimony of Dr. Neuman, that “[i]mplementing the features of Athwal would have improved the security and efficiency, and reduced the cost, of Zhou’s method for conducting transactions with automated vending machines.” Pet. 28–31 (citing Ex. 1003 ¶¶ 50–51).

On this record, we are persuaded that Petitioner sufficiently shows that it would have been obvious to one of ordinary skill in the art to combine Athwal’s teaching of providing positive feedback that a transaction has been completed with Zhou’s teaching of presenting prompts on a screen display to facilitate a transaction. *See* Pet. 28–31 (citing Ex. 1003 ¶¶ 50–54), 54–55.

d) Limitation 11(b)

Claim 11, limitation 11(b) requires: “wherein the user interface of the mobile payment application, after establishing the wireless communication path, includes: a visual representation of the available payment accepting unit.” Ex. 1001, 48:21–25.

Patent Owner argues that the Petition does not sufficiently explain how Zhou teaches this limitation. Prelim. Resp. 28–30. Taking into account Patent Owner’s argument, on this record, we determine that Petitioner has sufficiently shown that the prior art teaches this limitation. Pet. 86 (referencing analysis for limitations 1(c) (Pet. 42–48) and 1(g) (Pet. 54–55)).

Zhou discloses displaying a “VENDING MACHINE APPROVED” message after a vending machine is authenticated. Ex. 1004, 7:1–14.

Dr. Neuman testifies that: “A POSITA would have understood that these messages are ‘*visual representation[s] of the available payment accepting unit.*’” Ex. 1003 ¶ 155.

On this record, we determine that Petitioner sufficiently shows that Zhou discloses limitation 11(b).

e) Limitation 11(c)

Claim 11, limitation 11(c) requires: “wherein the user interface of the mobile payment application, after establishing the wireless communication path, includes: . . . an indication of a prepared balance.” Ex. 1001, 48:21–26.

Patent Owner argues that the Petition does not sufficiently explain how the combination of Zhou and Freeny teaches limitation 11(c). Prelim. Resp. 31. Taking into account Patent Owner’s argument, on this record, we determine that Petitioner has sufficiently shown that the prior art teaches limitation 11(c). Pet. 84–85, 88–89.

Freeny discloses a customer performing a “customer bank balance request after the customer is connected to their bank.” Ex. 1009, 9:32–35. An approved credit amount “can be checked at any time by the user of the proximity authorization unit.” *Id.* 38:3–5. Dr. Neuman testifies that: “A POSITA would have understood displaying an approved credit amount and credit balance constitutes ‘*indication[s] of a prepared balance.*’” Ex. 1003 ¶ 159. Dr. Neuman also indicates that it would have been obvious to a POSITA to combine Zhou and Freeny because the combination represents applying known techniques to a known device ready for improvement to yield predictable results and Freeny’s teachings would benefit the system in Zhou. Ex. 1003 ¶ 66.

On this record, we are persuaded that Petitioner sufficiently shows that it would have been obvious to one of ordinary skill in the art to combine Freeny's teaching of displaying a bank balance or an approved credit amount with Zhou's teaching of presenting prompts or information on a screen display to facilitate a transaction. *See* Pet. 84–85 (citing Ex. 1003 ¶ 66).

3. *Conclusion as to Claim 11*

After considering the Petition, the Preliminary Response, and all of the cited evidence of record, we determine that Petitioner shows a reasonable likelihood that claim 11 is unpatentable over Zhou, Athwal, Low, Arora, Casey, and Freeny.

III. CONCLUSION

After considering the evidence and arguments presented in the Petition, and taking into account the Preliminary Response, we determine that the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing that claim 11 is unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review is instituted for claim 11 of the '772 patent on the unpatentability ground asserted in the Petition; and

FURTHER ORDERED that pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

IPR2023-01449
Patent 11,481,772 B2

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CSC SERVICEWORKS, INC.,
Petitioner,

v.

PAYRANGE INC.,
Patent Owner.

IPR2023-01449
Patent 11,481,772 B2

Before KEN B. BARRETT, MEREDITH C. PETRAVICK, and
GEORGE R. HOSKINS, *Administrative Patent Judges*.

PETRAVICK, *Administrative Patent Judge*.

TERMINATION
Due to Settlement After Institution of Trial
35 U.S.C. § 317; 37 C.F.R. § 42.74

I. INTRODUCTION

With the Board’s authorization, Petitioner and Patent Owner (collectively referred to as “the Parties”) filed a Joint Motion to Terminate the above-identified proceeding due to settlement. Paper 16 (“Joint Motion”). In support of the Joint Motion, the Parties filed a Confidential Settlement Agreement (Ex. 1015 (“Settlement Agreement”)), as well as a Joint Request That the Settlement Agreement Be Treated as Business Confidential Information and Be Kept Separate (Paper 17 (“Joint Request”)) pursuant to 35 U.S.C. § 317(b) and 37 C.F.R. § 42.74.

II. DISCUSSION

In the Joint Motion, the Parties represent that they submitted “a confidential version of a true copy of the agreement or understanding (EX1015) between Petitioner and Patent Owner made in connection with, or in contemplation of, the termination of this proceeding” and “certify that there are no other agreements, oral or written, between the parties made in connection with, or in contemplation of, the termination of this proceeding.” Joint Motion 1. The Parties further represent that they have resolved their disputes regarding the subject patent, “including the District Court proceeding between the parties regarding this patent and do not anticipate further litigation between them concerning this patent.” *Id.*

Under 35 U.S.C. § 317(a), “[a]n inter partes review instituted under this chapter shall be terminated with respect to any petitioner upon the joint request of the petitioner and the patent owner, unless the Office has decided the merits of the proceeding before the request for termination is filed.” Section 35 U.S.C. § 317(a) also provides that if no petitioner remains in the *inter partes* review, the Office may terminate the review.

We instituted a trial on the above-identified proceeding on April 12, 2024. Paper 14. We have not yet decided the merits of the proceeding, and a final written decision has not been entered. Notwithstanding that the proceeding has moved beyond the preliminary stage, the Parties have shown adequately that the termination of the proceeding is appropriate. Under these circumstances, we determine that it is appropriate to terminate the proceeding with respect to the Parties.

After reviewing the Settlement Agreement between Petitioner and Patent Owner, we find that the Settlement Agreement contains confidential business information regarding the terms of settlement. We determine that good cause exists to treat the Settlement Agreement between Petitioner and Patent Owner as business confidential information pursuant to 35 U.S.C. § 317(b) and 37 C.F.R. § 42.74(c).

This Order does not constitute a final written decision pursuant to 35 U.S.C. § 318(a).

III. ORDER

Accordingly, for the reasons discussed above, it is:

ORDERED that the Joint Motion to Terminate (Paper 16) is *granted*, and IPR2023-01449 is *terminated* with respect to Petitioner and Patent Owner pursuant to 35 U.S.C. § 317(a) and 37 C.F.R. § 42.72; and

FURTHER ORDERED that the Joint Request (Paper 17) to Treat the Settlement Agreement (Exhibit 1015) as Business Confidential Information is *granted*, and the Settlement Agreement shall be kept separate from the file of Patent 11,481,772, and made available only to Federal Government agencies on written request, or to any person on a showing of good cause, pursuant to 35 U.S.C. § 317(b) and 37 C.F.R. § 42.74(c).

IPR2023-01449
Patent 11,481,772 B2

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AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK
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In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been
filed in the U.S. District Court District of Delaware on the following

☐ Trademarks or ☒ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED 3/14/2023	U.S. DISTRICT COURT District of Delaware
PLAINTIFF PAYRANGE INC.		DEFENDANT CSC SERVICEWORKS, INC.
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 8,856,045	10/7/2014	PAYRANGE INC.
2 10,438,208	10/8/2019	PAYRANGE INC.
3 10,891,608	1/12/2021	PAYRANGE INC.
4 11,481,772	10/25/2022	PAYRANGE INC.
5		

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1		
2		
3		
4		
5		

In the above—entitled case, the following decision has been rendered or judgement issued:

DECISION/JUDGEMENT

CLERK	(BY) DEPUTY CLERK	DATE
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Copy 1—Upon initiation of action, mail this copy to Director Copy 3—Upon termination of action, mail this copy to Director
Copy 2—Upon filing document adding patent(s), mail this copy to Director Copy 4—Case file copy

Petitioner Exhibit 1002-2202