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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/728,349	06/02/2015	Xiangzhen Xie	RFID-085C1	5346

26797 7590 02/15/2019

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

EXAMINER	
HAYLES, ASHFORD S	

ART UNIT	PAPER NUMBER
3687	

NOTIFICATION DATE	DELIVERY MODE
02/15/2019	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Applicant-Initiated Interview Summary	**Application No.** 14/728,349	**Applicant(s)** Xie et al.	
	Examiner ASHFORD S HAYLES	**Art Unit** 3687	**AIA Status** No

All participants (applicant, applicants representative, PTO personnel):

(1) ASHFORD S. HAYLES. (3) Liangsen Koh.

(2) Joe Zheng. (4) ____.

Date of Interview: 12 February 2019.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: ____.

Issues Discussed ☐101 ☐112 ☐102 ☑103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: n/a.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Discussed proposed amendments, recommended that clarification of how the payment gateway server is introduced into the payment process or state the novel limitation of writing data to an nfc medium provided by the POS. Additional search will be required, no agreement has been reached. Formal response to follow..

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☑ Attachment

/ASHFORD S HAYLES/ Primary Examiner, Art Unit 3687	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiners responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicants correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicants record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiners version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, Interview Record OK on the paper recording the substance of the interview along with the date and the examiners initials.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Xiangzhen Xie et al
Title:	Trusted Service Management Process
Serial No.:	14/728,349
Filing Date:	06/02/2015
Confirmation:	5346
Examiner:	HAYLES, ASHFORD S
Group Art Unit:	3687
Docket No.:	RFID-085C1

1. The Applicant has authorized the communication with the Examiner via the Internet

2. This is for informal discussion with the Examiner, content of which is not intended for entry as record.

Interview Agenda

Time: 02:00PM EST (11:00 AM PST)

Date: Tuesday, February 12, 2019

Participants: Examiner: Ashford

Inventor: Liangseng Koh

Representative: Joe Zheng (Reg. No.: 39,450, Cell: 408-891-9381)

Connection: Dialing in: **(415)363-6338**, and conference ID:**987987**

Agenda:

1. Joe briefly describes what this invention is about with respect to Claim 1;

2. Joe presents the distinctions between Claim 1 and the three cited references Sincai (U.S. 2013/0339253) in view of Mullen (U.S. 2012/029472) further in view of Shank (U.S. 2011/0066550)

3. Examiner presents his view on the distinctions;

4. Examiner suggests possible amendments to overcome the references;

5. Conclusion (Interview Summary)

AMENDMENTS TO THE CLAIMS

Please amend Claim 1 as follows:

1. (*Currently amended*) A method for mobile payment, the method comprising:
causing a mobile device to capture data directly from a medium physically presented thereto, the data including an electronic invoice and settlement information with a merchant associated with a POS device, wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium;
displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device, wherein the mobile device is configured to execute an installed application therein to capture the data from the medium;
receiving an entry by the mobile device, the entry including an additional amount from the user;
calculating a total amount by adding the additional amount to the amount in the electronic invoice;
generating a payment request automatically in the mobile device in response to the electronic invoice after the user has chosen a paying instrument, wherein the payment request includes the total amount and the settlement information;
displaying the electronic invoice on the display of the mobile device for the user to verify the payment request along with the chosen paying instrument;
sending the payment request from the mobile device to a payment gateway, wherein the payment gateway sends a message directly to the POS device that a monetary transaction per the payment request sent from the mobile device has been successfully completed in the payment gateway with the POS device when an amount equivalent to the total amount is deducted from an account associated with the user.; and
recording a confirmation in the mobile device that the monetary transaction per the payment request has been successfully completed with respect to the electronic invoice.

As shown in FIG. 1, the mobile device 110 is getting the data directly from the medium 108, where the data is generated and transferred onto the medium by the POS 106. In contrast, Sincai teaches explicitly in Paragraph [0162]-[0169] and in FIG. 5 that a POS generates the relevant payment data and sends the data to the

system server 504. A user scans a transaction code and downloads the data from the system server 504 per the transaction code. The subtle difference between Claim 1 above and Sincai is the 3rd entity (i.e., a repository server) required in Sincai to cache the data while the instant application is a one-to-one scheme without a server. Accordingly, Sincai teaches away from "*causing a mobile device to capture data directly from a medium physically presented thereto, the data including an electronic invoice and settlement information with a merchant associated with a POS device, wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium*".

On Page 7, the Examiner cites Mullen as Sincai fails to explicitly state two more limitations recited in Claim 1. As shown in FIG. 14, Mullen explicitly requires the mobile device to generate the payment request based on the total amount of the purchased items calculated in the mobile device, contradicting "*the POS device is used to prepare the electronic invoice and transfer the data to the medium, …* the payment request includes the total amount and the settlement information [from the POS]". The modification of Sincai with Mullen could not cure the deficiencies in Sincai.

On Page 8, Shank is cited to show generating a payment request in the mobile device in response to the electronic invoice. Again the modification of Sincai and Mullen with Shank could not cure the deficiencies in Sincai.

2. (*Previously amended*) The method as recited in claim 1, wherein said causing a mobile device to capture data directly from a medium includes placing the medium near the mobile device.

3. (*Previously amended*) The method as recited in claim 2, wherein the POS device includes a secure element that provides security and authentication to generate the electronic bill and transfer the data to the medium.

4. (*Previously amended*) The method as recited in claim 1, wherein said displaying the electronic invoice on a display of the mobile device comprises:

allowing the user to verify the amount in the electronic invoice and make a change to the amount when needed;

paying the total amount with the chosen paying instrument, wherein the chosen paying instrument is selected from a group consisting of an electronic wallet

already created in the mobile device, a traditional credit or debit card, and an electronic transfer.

5. (*Previously amended*) The method as recited in claim 1 further comprising: causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device, wherein the installed module is executed to receive the data from the medium carrying the electronic invoice and the settlement information.

6. (*Previously amended*) The method as recited in claim 5, wherein the data further includes security information about the merchant associated with the POS device, the security information includes an account and bank information of the registered merchant, an identifier of the secure element in the contactless card or the POS device.

7. (*Previously amended*) The method as recited in claim 6, wherein said sending the payment request from the mobile device to a payment gateway comprises:
transporting the payment request over a secured channel to the payment gateway, wherein the payment gateway is configured to perform the monetary transaction per the payment request by deducting an amount from an account owned by the user and generates an electronic notification for sending to the POS device.

8. (*Previously amended*) The method as recited in claim 7, wherein said displaying the electronic invoice on the display of the mobile device comprises:
allowing the user to modify the total amount in the electronic invoice when needed;
paying the total amount with an electronic payment provided by an installed module in the mobile device, wherein the installed module in the mobile device is configured to generate the payment request including the data pertaining to the electronic invoice to the payment gateway for processing.

9. (*Previously amended*) The method as recited in claim 8, wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established therebetween.

10. (*Previously amended*) The method as recited in claim 9, wherein the mobile device includes a secure element providing security and confidentiality required to support secure data communication between the mobile device and the payment gateway.

11. (*Previously amended*) The method as recited in claim 9, wherein said notifying the user in the mobile device that then monetary transaction per the payment request has been successfully completed with the POS device comprising: sending a notification of successful payment to the merchant of the POS device.

12. (*Previously amended*) A method for mobile payment, the method comprising:
generating an electronic invoice in a point of sale (POS) device;
transporting data to a medium, wherein the data includes the electronic invoice and settlement information with a merchant associated with the POS device; by causing the mobile device to capture the data from the medium, wherein the mobile device executes an installed application therein to generate a payment request in response to the captured data, the payment request being sent to a payment gateway includes a total amount combining an additional amount added by a user of the mobile device and an amount expressed in the electronic invoice; and
receiving a message in the POS device directly from the payment gateway that the electronic invoice has been settled but for the total amount more than the amount expressed in the electronic invoice, wherein the payment gateway is configured to send the message directly to the POS device when an amount equivalent to the total amount is deducted from an account associated with the user of the mobile devices.

13. (*Previously amended*) The method as recited in claim 12, wherein the medium is placed near the mobile device to allow the user to use the mobile device to capture the data.

14. (*Previously amended*) The method as recited in claim 13, wherein the POS device includes a secure element providing security and authentication to generate the electronic invoice.

15. (*Previously amended*) The method as recited in claim 14, wherein the data includes security information of the merchant associated with the POS device, the security information includes an account and bank information, an identifier of the secure element in the contactless card or the POS device.

16. (*Previously amended*) The method as recited in claim 15, wherein the message received in the POS device shows how much has been received from the user of the mobile device.

17. (*Previously amended*) The method as recited in claim 12, wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established between the mobile device and the payment gateway.

18. (*Previously amended*) A system for mobile payment, the system comprising:

a point of sale (POS) device provided to generate an electronic invoice upon receiving an entry, wherein data including the electronic invoice and settlement information is transferred to a medium, the mobile device is executing a module configured to capture the data and display an amount expressed in the electronic invoice; and wherein

the POS device receives an electronic notification directly from a payment gateway that the electronic invoice has been settled for a total amount including an additional amount and the amount expressed in the electronic invoice, the additional amount is added by the used, after the user of the mobile devices

verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice, the mobile device is configured to generate a payment request to be sent to the payment gateway to proceed with a payment according to the payment request.

19. (*Previously amended*) The system as recited in claim 18, wherein the data from the POS device includes an account and bank information of the merchant of the POS device.

20. (*Previously amended*) The system as recited in claim 19, wherein the payment gateway acts to deduct an amount equivalent to the total amount from an account associated with the user of the mobile devices and generates the electronic notification for the POS device.

Electronic Patent Application Fee Transmittal

Application Number:	14728349
Filing Date:	02-Jun-2015
Title of Invention:	Method and apparatus for mobile payments
First Named Inventor/Applicant Name:	Xiangzhen Xie
Filer:	Joe Zheng
Attorney Docket Number:	RFID-085C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 2 months with $0 paid	2252	1	300	300
Miscellaneous:				
		Total in USD ($)		**300**

Electronic Acknowledgement Receipt

EFS ID:	35145434
Application Number:	14728349
International Application Number:	
Confirmation Number:	5346
Title of Invention:	Method and apparatus for mobile payments
First Named Inventor/Applicant Name:	Xiangzhen Xie
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	RFID-085C1
Receipt Date:	14-FEB-2019
Filing Date:	02-JUN-2015
Time Stamp:	02:53:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$300
RAM confirmation Number	021419INTEFSW02544800
Deposit Account	502436
Authorized User	Joe Zheng

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	ResponseTo1stOARCE.pdf	155885 [illegible]	no	11
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30269 [illegible]	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	186154		

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.

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.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Xiangzhen Xie et al
Title:	Trusted Service Management Process
Serial No.:	14/728,349
Filing Date:	06/02/2015
Confirmation:	5346
Examiner:	Ashford Hayles
Group Art Unit:	3687
Docket No.:	RFID-085C1

February 13, 2019

Mail Stop: No-Fee Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to First OA (RCE)

Dear Sir:

In response to Office Action dated 09/17/2019, the Applicant respectfully requests the Examiner to enter the following amendments:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Response.

REMARKS/ARGUMENTS begin on page 9 of this Response.

AMENDMENTS TO THE CLAIMS

Please amend Claims 1-6, 8, 12-15 and 18 as follows:

1. (*Currently amended*) A method for mobile payment, the method comprising:

causing a mobile device to capture data directly from a ~~medium~~ tag physically presented thereto, wherein the tag receives the data directly from a POS device and allows the mobile device to capture the data therefrom, the data including an electronic invoice and settlement information with a merchant associated with ~~a~~ the POS device ~~wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium~~;

displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device, wherein the mobile device is configured to execute an installed application therein to capture the data from the medium;

receiving an entry by the mobile device, the entry including an additional amount from the user;

calculating a total amount by adding the additional amount to the amount in the electronic invoice;

generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument, wherein the payment request includes the total amount and the settlement information;

displaying the electronic invoice on the display of the mobile device for the user to verify the payment request along with the chosen paying instrument;

sending the payment request from the mobile device to a payment gateway, wherein the payment gateway sends a message directly to the POS device that a monetary transaction per the payment request sent from the mobile device has been successfully completed in the payment gateway with the POS device when an amount equivalent to the total amount is deducted from an account associated with the user~~.~~; and

recording a confirmation in the mobile device that the monetary transaction per the payment request has been successfully completed with respect to the electronic invoice.

2. (*Currently amended*) The method as recited in claim 1, wherein said causing a mobile device to capture data directly from a ~~medium~~ tag physically presented thereto includes placing the mobile device ~~medium~~ near the tag ~~mobile device~~.

3. (*Currently amended*) The method as recited in claim 2, wherein the POS device ~~includes a secure element that~~ provides security and authentication to generate the electronic bill and transfer the data to the ~~medium~~tag.

4. (*Currently amended*) The method as recited in claim 1, wherein said displaying the electronic invoice on a display of the mobile device comprises:

allowing the user to verify the amount in the electronic invoice and make a change to the amount when needed; and

paying the total amount with the chosen paying instrument, wherein the chosen paying instrument is selected from a group consisting of an electronic wallet already created in the mobile device, a traditional credit or debit card, and an electronic transfer.

5. (*Currently amended*) The method as recited in claim 1 further comprising: causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device, wherein the installed module is executed to receive the data directly from the ~~medium~~ tag carrying the electronic invoice and the settlement information.

6. (*Currently amended*) The method as recited in claim 5, wherein the data further includes security information about the merchant associated with the POS device, the security information includes an account and bank information of the registered

merchant, an identifier of ~~the secure element in the contactless card~~ the tag or the POS device.

7. (*Previously amended*) The method as recited in claim 6, wherein said sending the payment request from the mobile device to a payment gateway comprises:

transporting the payment request over a secured channel to the payment gateway, wherein the payment gateway is configured to perform the monetary transaction per the payment request by deducting an amount from an account owned by the user and generates an electronic notification for sending to the POS device.

8. (*Currently amended*) The method as recited in claim 7, wherein said displaying the electronic invoice on the display of the mobile device comprises:

allowing the user to modify the ~~total~~ amount in the electronic invoice when needed;

paying the total amount with an electronic payment provided by an installed module in the mobile device, wherein the installed module in the mobile device is configured to generate the payment request including the data pertaining to the electronic invoice to the payment gateway for processing.

9. (*Previously amended*) The method as recited in claim 8, wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established therebetween.

10. (*Previously amended*) The method as recited in claim 9, wherein the mobile device includes a secure element providing security and confidentiality required to support secure data communication between the mobile device and the payment gateway.

11. (*Previously amended*) The method as recited in claim 9, wherein said notifying the user in the mobile device that then monetary transaction per the payment request has been successfully completed with the POS device comprising: sending a notification of successful payment to the merchant of the POS device.

12. (*Currently amended*) A method for mobile payment, the method comprising:

generating a set of data in a point of sale (POS) device, the data including an electronic invoice and settlement information with a merchant associated with the POS device ~~in a point of sale (POS) device~~;

transporting the data directly to a ~~medium~~tag ~~, wherein the data includes the electronic invoice and settlement information with a merchant associated with the POS device, by~~

presenting the tag to the mobile device;

causing the mobile device to capture the data from the ~~medium~~tag, wherein the mobile device executes an installed application therein to generate a payment request in response to the captured data, the payment request being sent to a payment gateway includes a total amount combining an additional amount added by a user of the mobile device and an amount expressed in the electronic invoice; and

receiving a message in the POS device directly from the payment gateway that the electronic invoice has been settled but for the total amount more than the amount expressed in the electronic invoice, wherein the payment gateway is configured to send the message directly to the POS device when an amount equivalent to the total amount is deducted from an account associated with the user of the mobile devices.

13. (*Currently amended*) The method as recited in claim 12, wherein the ~~medium~~ tag is ~~placed~~ presented near the mobile device to allow the user to use the mobile device to capture the data.

14. (*Currently amended*) The method as recited in claim 13, wherein the POS device is provided with ~~includes a secure element providing~~ security and authentication to generate the electronic invoice.

15. (*Currently amended*) The method as recited in claim 14, wherein the data includes security information of the merchant associated with the POS device, the security

information includes an account and bank information, an identifier of ~~the secure element in the contactless card or~~ the tag or the POS device.

16. (*Previously amended*) The method as recited in claim 15, wherein the message received in the POS device shows how much has been received from the user of the mobile device.

17. (*Previously amended*) The method as recited in claim 12, wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established between the mobile device and the payment gateway.

18. (*Currently amended*) A system for mobile payment, the system comprising:

a point of sale (POS) device provided to generate a set of date including an electronic invoice upon receiving an entry, wherein the data including the electronic invoice and settlement information is transferred to a ~~medium~~tag, the mobile device is executing a module configured to capture the data directly from the tag physically presented thereto and display an amount expressed in the electronic invoice; and wherein

the POS device receives an electronic notification directly from a payment gateway that the electronic invoice has been settled for a total amount including an additional amount and the amount expressed in the electronic invoice, the additional amount is added by the user, after the user of the mobile devices verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice, the mobile device is configured to generate a payment request to be sent to the payment gateway to proceed with a payment according to the payment request.

19. (*Previously amended*) The system as recited in claim 18, wherein the data from the POS device includes an account and bank information of the merchant of the POS device.

20. (*Previously amended*) The system as recited in claim 19, wherein the payment gateway acts to deduct an amount equivalent to the total amount from an account associated with the user of the mobile devices and generates the electronic notification for the POS device.

REMARKS

Claims 1 - 20 were examined again. In the Office Action dated 09/17/2019, Claims 1, 2, 4, 12 and 17-20 are rejected under pre-AIA 35 U.S.C. 103{a) as being unpatentable over Sincai U.S. 2013/0339253 (hereinafter "Sincai") in view of Mullen et al. U.S. 2012/029472 (hereinafter "Mullen") further in view of Shank et al. U.S. 2011/0066550 (hereinafter "Shank"), Claim 5 is rejected under pre-AIA 35 U.S.C. 103{a) as being unpatentable over Sincai in view of Mullen et in view of Shank further in view of Dryer et al. US2012/0290376 (hereinafter "Dryer"), and Claims 3, 6-11, 14 and 15 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Sincai in view of Mullen in view of Shank in view of Dryer further in view of Florek et al.2011/0112968 (hereinafter "Florek").

The Applicant appreciates the Examiner for providing detailed comments in the Office Action. In the foregoing amendments, Claims 1-6, 8, 12-15 and 18 have been amended. No new matters have been introduced. Reconsideration of pending claims is respectfully requested.

Interview Summary

The Applicant appreciates the Examiner for granting a telephonic interview that took place on February 12, 2019. The participants included Mr. Ashford Hayles (Examiner), Mr. Liangseng Koh (Co-inventor) and Joe Zheng (the undersigned representative). The Applicant had the opportunity to present the distinctions between Claims 1 and the cited references and listen to how the Examiner viewed the cited references and claims. Proposed amendments were also discussed. No agreement was reached, the Examiner will perform another search after a formal response is filed.

Claim Rejections - 35 USC § 103

On Page 5 of this Office Action, Claims 1, 2, 4, 12 and 17-20 are rejected under pre-AIA 35 U.S.C. 103{a) as being unpatentable over Sincai in view of Mullen further in view of Shank.

As amended, Claim 1 now recites:

causing a mobile device to capture data directly from a tag physically presented thereto, wherein the tag receives the data directly from a POS device and allows the mobile device to capture the data therefrom, the data including an electronic invoice and settlement information with a merchant associated with the POS device;

displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device, wherein the mobile device is configured to execute an installed application therein to capture the data from the medium;

...

(*emphasis added*)

As shown in FIG. 1, the mobile device 110 is getting the data directly from a tag (e.g., the contactless card 108), where the tag includes data generated and transferred onto the tag by the POS 106. In contrast, Sincai teaches explicitly in Paragraph [0162]-[0169] and in FIG. 5 that a POS generates the relevant payment data and sends the data to the system server 504. A user scans a transaction code and downloads the data from the system server 504 per the transaction code. The subtle difference between Claim 1 of the instant application and Sincai is the configuration. In Sincai, a 3rd entity (i.e., a repository server) is required to cache the data while the instant application is a one-to-one scheme without a server. Sincai teaches away from "*causing a mobile device to capture data directly from a tag physically presented thereto, wherein the tag receives the data directly from a POS device and allows the mobile device to capture the data therefrom, the data including an electronic invoice and settlement information with a merchant associated with the POS device*". Accordingly, Claim 1 as amended shall be allowable over Sincai.

On Page 7, the Examiner cites Mullen as Sincai fails to explicitly state: generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument and recording a confirmation in the mobile device that a monetary transaction per the payment request has been successfully completed with the respect to the electronic invoice. As shown in FIG. 14,

Mullen explicitly requires the mobile device to generate the payment request based on the total amount of the purchased items calculated in the mobile device, contradicting "*the data directly from a POS device and allows the mobile device to capture the data therefrom*". The modification of Sincai with Mullen would not cure the deficiencies in Sincai as reasoned above. Accordingly, Claim 1 as amended shall be allowable over Sincai and Mullen.

On Page 8, Shank is cited to show generating a payment request in the mobile device in response to the electronic invoice. Shank explicitly teaches that the transferring of bill is initiated from the biller device to the payer device. Conversely in the instant application, the biller device generates a bill and writes it to a tag. Again the modification of Sincai and Mullen with Shank would not cure the deficiencies in Sincai as reasoned above. Accordingly, Claim 1 as amended shall be allowable over Sincai, Mullen and Shank, viewed alone or in combination. Reconsideration of Claims 1-11 is kindly requested.

Claim 12 has been amended similarly to Claim 1. Without repeating the same, the Applicant wishes to rely upon the above arguments/reasons supporting Claim 1 to support Claim 12 and submits the combination of Sincai, Mullen and Shank fails to suggest "*generating a set of data in a point of sale (POS) device, the data including an electronic invoice and settlement information with a merchant associated with the POS device"* and *"transporting the data directly to a tag*". Accordingly, the Applicant submits Claim 12 as amended shall be allowable over Sincai, Mullen and Shank, viewed alone or in combination. Reconsideration of Claims 12-17 is kindly requested.

Claim 18 has been also amended similarly to Claim 1. Without repeating the same, the Applicant wishes to rely upon the above arguments/reasons supporting Claim 1 to support Claim 18 and submits neither one or the combination of Sincai, Mullen and Shank suggests " *wherein the data including the electronic invoice and settlement information is transferred to a tag, the mobile device is executing a module configured to capture the data directly from the tag physically presented thereto...*", the Applicant

submits Claim 18 as amended shall be also allowable over Sincai, Mullen and Shank, viewed alone or in combination. Reconsideration of Claims 18-20 is kindly requested.

The patentability of the independent claims has been argued specifically as set forth above and thus Applicant will not take this opportunity to argue further the merits of the rejection with regard to each dependent claim. However, Applicant does not concede that the dependent claims are not independently patentable and reserves the right to argue the patentability of the dependent claims at a later date if necessary.

In view of the above amendments and remark, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to " Mail Stop: No-fee Amendment Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450", Feb. 13, 2019. e-filed.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg.: No. 39,450

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/728,349	Filing Date 06/02/2015	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $40 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $210 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	02/14/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	SLIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/LISA R WRIGHT/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. 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 12 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, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CA 95015

Courtesy Reminder for
Application Serial No: 14/728,349

Attorney Docket No: RFID-085C1
Customer Number: 26797
Date of Electronic Notification: 09/17/2018

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/728,349	06/02/2015	Xiangzhen Xie	RFID-085C1	5346

26797 7590 09/17/2018

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
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EXAMINER	
HAYLES, ASHFORD S	

ART UNIT	PAPER NUMBER
3687	

NOTIFICATION DATE	DELIVERY MODE
09/17/2018	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No. 14/728,349	Applicant(s) Xie et al.	
	Examiner ASHFORD S HAYLES	Art Unit 3687	AIA Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 8/7/2018.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b)☑ This action is non-final.

3)☐ 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.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, 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.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on See Continuation Sheet is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ 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)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

Continuation of Application Papers 11): 6/23/2015

DETAILED ACTION

Amendment received on August 7, 2018 has been acknowledged. Claims 1-3, 5, 7, 9, 12-14 and 17-18 have been amended and entered. Therefore, claims 1-20 are pending.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 7, 2018 has been entered.

Response to Arguments

Applicant's arguments filed August 7, 2018 have been fully considered but they are not persuasive.

Applicant argues:

"...the mobile device in Mullen does not send an electronic invoice to the payment card but only accepts information about the payment card. Mullen is also silent about the payment card "generating a payment request "for the payment gateway, as there is no need to do so in Mullen"

Examiner respectfully disagrees. Mullen clearly teaches that a link is sent to user's mobile device which has the user's bill. Mullen teaches where the payment card data is transferred onto the mobile device via tapping against the mobile device and it is the application within the mobile device that generates a payment request that is sent to a payment gateway for processing. Therefore, Mullen teaches a device that is capable of generating and transmitting a payment request to a payment server or issuer as required by claims 1, 12 and 18.

Applicant's arguments with respect to claim 2 and 13 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection. Regarding Claim 5, Dryer et al. teaches a system that can create a NFC connection between the devices so as to communicate to each other. Mullen and Shank both provide the capability to perform mobile transactions, it would have been obvious to one having ordinary skill within the art to include the NFC functionality as taught by Dryer et al. to provide a system and method where authorization data is shared between the mobile communication device and the electronic payment device without providing electronic payment instrument data to a merchant.

Applicant argues:

"...the modification of Mullen, Shank and Dryer with Florek would not cure the deficiency in Mullen as expressed above."

Examiner respectfully disagrees. Florek is combined to teach the specific limitations regarding the POS having a secure element installed and an identification of the secure element used in a payment transaction which is disclosed throughout Florek et al.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented 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. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 2, 4, 12 and 17-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Sincai U.S. 2013/0339253 in view of Mullen et al. U.S. 2012/029472 further in view of Shank et al. U.S. 2011/0066550.

As per Claim 1, Sincai discloses a method for mobile payment, the method comprising:

causing a mobile device to capture data directly from a medium (pg.6, ¶ [0164] discusses The customer uses the mobile device 501 incorporated camera to capture the transaction code),

the data including an electronic invoice and settlement information with a merchant associated with a POS device (pg.6, ¶ [0166] discusses the transaction code identifies the specific purchase and contains information such as PoS ID and invoice number),

wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium (pg.6, ¶ [0166] discusses the code is generated by the PoS and printed by the cashier printer either on the bill, a dedicated note or on a screen);

displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device (Figure 7C, depicts a mobile device displaying a bill from Giarffe which includes an amount to be paid).

wherein the mobile device is configured to execute an installed application therein to capture the data from the medium (pg.5, ¶ [0143] discusses registration of mobile payment application, that captures payment code);

displaying the electronic invoice on a display of the mobile device for a user to verify the payment request along with the chosen paying instrument (pg.6, ¶ [0171] discusses the end user receives the bill and change the payment means (which was suggested automatically by the system servers 504) and approves/denies the payment, See Figure 7C, which includes Gold Visa payment method);

receiving an entry by the mobile device the entry including an additional amount from the user (pg.6, ¶ [0171] discusses end user receives the bill he may select/deselect purchased items, decide to pay just part of the sum, set additional attributes (such as tip amount, number of payments, split tab etc.);

calculating a total amount by adding the additional amount to the amount in the electronic invoice (pg.6, ¶ [0171] discusses end user receives the bill he may select/deselect purchased items, set additional attributes such as tip amount, and approves/denies the payment ¶[0172] end user approves transaction[1]).

Sincai teaches a user choosing a paying instrument (See Figure 7A, payment means, Figure 7E, selectable payment means) and recording a confirmation that a monetary transaction per the payment request has been successfully completed with the respect to the electronic invoice (pg.7, ¶ [0176] discusses if the user has sufficient funds it approves the payment, updates the amount of money in the prepaid account, stores the payment record in the database, sends back an approval to the PoS 503 and sends a notification to the user's device).

[1] The Examiner is construing the ability to approve, set an additional and approve a transaction as calculating a total amount including the additional amount, because it is old and well known to include the additional amount when approving a transaction.

However, Sincai fails to explicitly state generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument and

recording a confirmation in the mobile device that a monetary transaction per the payment request has been successfully completed with the respect to the electronic invoice.

Mullen et al. teaches generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement) and

recording a confirmation in the mobile device that a monetary transaction per the payment request has been successfully completed with the respect to the electronic invoice (pg.9, ¶ [0116] discusses a mobile device may complete a purchase transaction with an entity of a payment network (e.g., a payment server) and may further request that the payment server deliver a receipt to the mobile device in a text message format. Accordingly, for example, in addition to providing payment information to the payment server, a mobile device may also provide a text message address (e.g., an SMS text message address) to the payment server. In so doing, for example, the mobile device may receive a receipt of the completed purchase transaction from the payment server via a text message at the text message address provided by the mobile device[2]).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai to include the ability for the mobile device to generate a payment message as taught by Mullen et al. to provide a mobile device to [may] provide payment acceptance for purchases, payments and/or money transfers by accepting payment

[2] By receiving the receipt as a text message, multimedia message, email or purchase receipt by the mobile device constitutes as storing a confirmation within the mobile device.

information from a powered, or a non-powered, card using a contactless communication channel formed between the card and the mobile device (Abstract).

Shank teaches generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument (pg.5, ¶ [0051] discusses once the bill 88 has been selected the payer selects an account for making the payment, ¶ [0052] discusses upon receiving the accept bill message, the billing device 12b may send "Pay To" information to the paying device 12a, as shown in step 216. The Pay To information may include the device identifier of the billing device, the location of the billing device, a bill number, the bill title, the payment amount, the bill details, and/or one or more authorization codes),

wherein the payment request includes the total amount and the settlement information (pg.5, ¶ [0054] discusses the paying device 12a may include only certain parameters of the Pay To information, such as the device identifier of the billing device, the location of the billing device, the bill title, the payment amount, and the authorization codes);

sending the payment request from the mobile device to a payment gateway (¶ [0054] discusses the paying device 12a may send a transaction to the gateway 14 at step 222. The transaction may include the Pay To information and "Bill To" information describing the paying device 12a),

wherein the payment gateway, sends a message directly to the POS device that a monetary transaction per the payment request sent from the mobile device has been successfully completed in the payment gateway with the POS device when an amount equivalent to the total amount is deducted from an account associated with the user (pg.6, ¶ [0061] discusses the gateway 14 may receive the result of the transaction from the paying bank 16a. The result may indicate whether the transaction succeeded, a transaction number, and/or an estimated date that the transferred funds will become available to the biller, pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232. Sending the result to

the billing device 16b from the gateway 14, rather than from the paying device 16a, may reduce the risk of fraud).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai and Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 2, Sincai discloses the method as recited in claim 1, wherein said causing a mobile device to capture data directly from a medium includes placing the medium near the mobile device (Figure 7B, depicts the mobile device using the incorporated camera to capture the transaction code).

As per Claim 4, Sincai discloses the method as recited in claim 1, wherein said displaying the electronic invoice on a display of the mobile device comprises:

allowing the user to verify the amount in the electronic invoice and make a change to the amount when needed (Figure 7C depicts where the user can view/edit a bill from Giarffe).;

paying the total amount with the chosen paying instrument (pg.6, ¶ [0171] discusses suggested payment means or the end user may change the payment means),

wherein the chosen paying instrument is selected from a group consisting of an electronic wallet already created in the mobile device, a traditional credit or debit card, and an electronic transfer (Figure 7E depicts credit and debit cards pg. 6, ¶ [0178] discusses Money Transfer).

As per Claim 12, Sincai discloses a method for mobile payment, the method comprising:

generating an electronic invoice in a point of sale (POS) device (pg.6, ¶ [0166] discusses the code is generated by the PoS and printed by the cashier printer either on the bill, a dedicated note or on a screen);

transporting data to a medium, wherein the data includes the electronic invoice and settlement information with a merchant associates with the POS device (pg.6, ¶ [0166] discusses the transaction code identifies the specific purchase and contains information such as PoS ID and invoice number),

by causing the mobile device to capture the data from the medium (Figure 7B, depicts mobile device capturing data and Figure 7C depicts an electronic bill amount);

receiving a message in the POS device directly from the payment gateway that the electronic invoice has been settled but for the total amount more than the amount expressed in the electronic invoice (pg.6, ¶[0173] discusses the system servers 504 perform the authorization process 201 vis-a-vis the acquiring bank and return it's response (approved/denied) to both the PoS 503, which sends back the response to the cashier 502, and the end-user 501),

wherein the payment gateway is configured to send the message directly to the POS device when an amount equivalent to the total amount is deducted from an account with the user of the mobile device (pg.6, ¶ [0176] discusses If the user has sufficient funds it approves the payment, updates the amount of money in the prepaid account, stores the payment record in the database, sends back an approval to the PoS 503 and sends a notification to the user's device).

Mullen et al. teaches wherein the mobile device executes an installed application therein to generate a payment request in response to the captured data (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement),

the payment request includes a total amount combining an additional amount added by a user of the mobile device and an amount expressed in the electronic invoice (pg.13, ¶ [0154] discusses Mobile device 2502 may interact with a merchant establishment (e.g., a restaurant) to gain entry into a user's tab at the merchant's establishment (e.g., a food and alcohol bill generated by the restaurant) a user may monitor each item on the bill, enter an additional amount into the bill e.g., a tip and then pay the bill all from the convenience of the user's mobile device 2502[3]).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai to include the ability for the mobile device to generate a payment message as taught by Mullen et al. to provide a mobile device to [may] provide payment acceptance for purchases, payments and/or money transfers by accepting payment information from a powered, or a non-powered, card using a contactless communication channel formed between the card and the mobile device (Abstract).

Shank teaches wherein the data further includes settlement information with a merchant associated with the POS device (pg.5, ¶ [0051] discusses the billing device 12b may send a list of one or more active bills 88 to the paying device, pg.4, ¶ [0047] discusses the details may provide an itemized record describing the goods and/or services provided, the taxes charged, and any other suitable details. The biller may then select an account for receiving the funds);

receiving a message in the POS device from the payment gateway that the electronic invoice has been settled (pg.6, ¶ [0061] discusses the gateway 14 may receive the result of the transaction from the paying bank 16a. The result may indicate whether the transaction succeeded, a transaction number, and/or an estimated date that the transferred funds will become available to the biller ¶ [0062]

[3] The Examiner is construing the food and alcohol as an amount expressed on the bill and the tip as the additional amount.

discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232.).

the payment request being sent to a payment gateway includes a total amount expressed on the electronic invoice (pg.5, ¶ [0054] discusses the paying device 12a may include only certain parameters of the Pay To information, such as the device identifier of the billing device, the location of the billing device, the bill title, the payment amount, and the authorization codes, ¶ [0054] discusses the paying device 12a may send a transaction to the gateway 14 at step 222. The transaction may include the Pay To information and "Bill To" information describing the paying device 12a),

wherein the payment gateway, is configured to send the message directly to the POS device when an amount equivalent to the total amount is deducted from an account associated with the user of the mobile devices (pg.6, ¶ [0062] Sending the result to the billing device 16b from the gateway 14, rather than from the paying device 16a, may reduce the risk of fraud).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 13, Sincai discloses the method as recited in claim 1, wherein the medium is placed near the mobile device to allow the user to use the mobile device to capture the data (pg.6, ¶ [0167] discusses position a unique identification sticker in a visible and accessible place on the cashier counter. In this case the transaction code identifies the specific PoS terminal and Figure 7b depicts mobile device capturing electronic bill).

As per Claim 16, Sincai discloses the method of the claimed invention. However, Sincai is silent regarding wherein the message received in the POS device shows how much has been received from the user of the mobile device.

Shank teaches wherein the message received in the POS device shows how much has been received from the user of the mobile device (pg.6, ¶ [0062] discusses the result may be communicated to the user via email, text message, or any suitable type of notification. An example of a result 94 received by the billing device 12b is illustrated in FIG. 4F).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 17, Sincai discloses the method as recited in claim 12. However, Sincai is silent regarding wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established between the mobile device and the payment gateway.

Shank et al. teaches wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established between the mobile device and the payment gateway (pg.5, ¶ [0053] discusses *each device 12 may open a connection with the gateway 14*. The connections may be opened according to any suitable network communications protocol. The connections may be secured by any suitable security protocol, such as Secure Socket Layer (SSL)).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a secure

connection between mobile devices and a payment gateway to complete a payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 18, Sincai discloses a system for mobile payment, the system comprising:

a point of sale (POS) device provided to generate an electronic invoice upon receiving an entry (pg.6, ¶ [0166] discusses the code is generated by the PoS and printed by the cashier printer either on the bill, a dedicated note or on a screen),

wherein data including the electronic invoice and settlement information is transferred to a medium (pg.6, ¶ [0166] discusses the transaction code identifies the specific purchase and contains information such as PoS ID and invoice number),

the mobile device is executing a module configured to capture the data and display an amount expressed in the electronic invoice (Figure 7B, depicts mobile device capturing data and Figure 7C depicts an electronic bill amount);

the POS device receives an electronic notification directly from a payment gateway that the electronic invoice has been settled for a total amount including an additional amount and the amount expressed in the electronic invoice (pg.6, ¶ [0171] discusses receives the bill he may select/deselect purchased items, decide to pay just part of the sum, set additional attributes (such as tip amount, number of payments, split tab etc.) and change the payment means (which was suggested automatically by the system servers 504) and approves/denies the payment, the data is sent back to the system servers 504 and ¶ [173] discusses the system servers 504 perform the authorization process 201 vis-a-vis the acquiring bank and return it's response (approved/denied) to both the PoS 503, which sends back the response to the cashier 502, and the end-user 501),

after the user of the mobile devices verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice (pg.6, ¶ [0171] discusses receives the bill he may select/deselect purchased items and approves/denies the payment, the data is sent back to the system servers 504 and ¶ [173] discusses if the end user approved[s] the transaction)

Sincai discloses the claimed invention, where a user has multiple payment means to select from (Figure 7E). However, Sincai fails to explicitly disclose the mobile device is configured to generate a payment request to be sent to the payment gateway to proceed with a payment according to the payment request.

Mullen et al. teaches the mobile device is configured to generate a payment request to be sent to the payment gateway to proceed with a payment according to the payment request (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement and pg.13, ¶ [0154] discusses Mobile device 2502 may interact with a merchant establishment (e.g., a restaurant) to gain entry into a user's tab at the merchant's establishment (e.g., a food and alcohol bill generated by the restaurant) a user may monitor each item on the bill, enter an additional amount into the bill e.g., a tip and then pay the bill all from the convenience of the user's mobile device 2502[4]).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai to include the ability for the mobile device to generate a payment message as taught by Mullen et al. to provide a mobile device to [may] provide payment acceptance for purchases, payments and/or money transfers by accepting payment

[4] The Examiner is construing the food and alcohol as an amount expressed on the bill and the tip as the additional amount.

information from a powered, or a non-powered, card using a contactless communication channel formed between the card and the mobile device (Abstract).

Shank teaches a point of sale (POS) device provided to generate an electronic invoice upon receiving an entry (pg.4, ¶ [0047] discusses the user of the billing device (i.e., the biller) may create a bill at step 204. For example, the biller may access a billing menu 84 of the application as shown in FIG. 4B. The billing menu 84 may allow the biller to create a new bill by pressing an add bill button);

wherein data including the electronic invoice is sent to a mobile device when the POS device is presented near the mobile device (pg.4, ¶ [0048] discusses the billing device may broadcast a device identifier. In some embodiments, the device identifier may be broadcast locally over a short-range wireless communication protocol, such as a BLUETOOTH protocol, ¶ [0050] discusses Upon receiving the accept message containing the connection instructions and its own device identifier, the billing device 12b may establish a dedicated peer-to-peer connection with the paying device 12a at step 210. The dedicated connection may be established according to the short-range wireless communication protocol being used ¶ [0051] discusses the billing device may send a list of one or more active bills to the paying device),

the mobile device is executing a module configured to read the data and display an amount expressed in the electronic invoice (pg.3, ¶ [0035] discusses Peer-to-Peer Payment application, See Figures 5A-5B);

the POS device receives an electronic notification from a payment gateway that the electronic invoice has been settled for a total amount (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant

with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 19, Sincai discloses the claimed invention. However, Sincai is silent regarding wherein the data from the POS device includes an account and bank information of the merchant of the POS device.

Shank teaches wherein the data from the POS device includes an account and bank information of the merchant of the POS device (pg.5, ¶ [0052] discusses The Pay To information may include the device identifier of the billing device, the location of the billing device, a bill number, the bill title, the payment amount, the bill details, and/or one or more authorization codes. In some embodiments, the authorization codes may include a biller authorization code representing a user name of the biller and a biller account code representing the account to which the funds are to be transferred)

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide merchant account and bank information for completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 20, Sincai discloses the claimed invention. However, Sincai is silent regarding wherein the payment gateway acts to deduct an amount equivalent to the total amount from an

account associated with the user of the mobile devices and generates the electronic notification for the POS device.

Shank teaches the payment gateway acts to deduct an amount equivalent to the total amount from an account associated with the user of the mobile devices (pg.5, ¶ [0058] discusses the gateway 14 may instruct the payer's account manager 16a (e.g., the paying bank) to withdraw the payment amount from the paying account and to deposit the payment amount into the billing account and generates the electronic notification for the POS device (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232. Sending the result to the billing device 16b from the gateway).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a payment gateway to deduct payment from a customer account to a merchant account as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

Claim 5 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Sincai U.S. 2013/0339253 in view of Mullen et al. U.S. 2012/029472 in view of Shank US 2011/0066550 further in view of Dryer et al. US2012/0290376.

As per Claim 5, Sincai discloses wherein the installed module executed to receive the data from the medium carrying the electronic invoice and the settlement information (pg.6, ¶ [0164] discusses the customer uses the mobile device 501 incorporated camera to capture the transaction code, ¶ [0166] discusses the transaction code identifies the specific purchase and contains information such as PoS ID and invoice number).

Shank discloses the billing device may broadcast a device identifier. In some embodiments, the device identifier may be broadcast locally over a short-range wireless communication protocol, such as a BLUETOOTH protocol.

However, Sincai and Shank are silent regarding a causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device.

Dryer et al. teaches a causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device (pg.6, ¶ [0047] discusses the consumer's mobile communication device 110 and the merchant's electronic payment device 120 brought into contact or in proximity with each other to establish a temporary connection, e.g., a NFC connection 160, between the devices so they can communicate with each other).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai and Shank et al. to include the ability to receive transaction data from a merchant in order to process a mobile payment as taught by Dryer et al. to provide a system and method where authorization data is shared between the mobile communication device and the electronic payment device without providing electronic payment instrument (e.g. credit card) data to the merchant (Abstract).

Claims 3, 6-11, 14 and 15 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Sincai U.S. 2013/0339253 in view of Mullen et al. U.S. 2012/029472 in view of Shank et al. US2011/0066550 in view of Dryer et al. US2012/0290376 further in view of Florek et al. 2011/0112968.

As per Claims 3 and 14, Sincai teaches a programming interface (API) adapted to handle all communication with the PoS, handle authentication and validation services of the system[5] (pg.8, ¶ [0226]).

Shank teaches where the billing device 12b may establish a dedicated peer-to-peer connection with the paying device 12a at step 210. The dedicated connection may be established according to the short-range wireless communication protocol being used (pg.5, ¶ [0050]).

However, Sincai and Shank are silent regarding wherein the POS device includes a secure element that provides security.

Florek et al. teaches wherein the POS device includes a secure element that provides security (pg.10, ¶ [0089] discusses In its hardware on the SAM card 42 the Sales Device 28 encompasses a Secure Element 6 into which the POS payment terminal 27 identification and also the Master Key for the encryption of the communicated data is loaded).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai, Mullen, Shank and Dryer et al., to include the ability to provide a merchant sales device with a secure element to conduct mobile transactions as taught by Florek et al. to provide a method of direct debit payment using a contactless transmission link and describes a configuration, in which a temporary payment terminal, with simplified structure that is intended above all for small business premises, can be created using a mobile communication device.

[5] Examiner is construing the ability for the API to handle authentication and validation of the system to include the ability for the POS to authenticate and generate the electronic bill.

The solution refers to increase in security and comfort in paying over the mobile communication device with removable memory card for example in the form of a micro SD card (pg.1, ¶ [0001]).

As per Claims 6 and 15, Sincai discloses the claimed invention. However, Sincai is silent regarding wherein the data further includes security information about the merchant associated with the POS device, the security information includes an account and bank information of the registered merchant, an identifier of the secure element in the contactless card or the POS device.

Dryer et al. teaches wherein the data further includes security information about the merchant associated with the POS device, the security information includes an account and bank information of the registered merchant, an identifier of the secure element in the contactless card or the POS device (pg.5, ¶ [0046] discusses includes or is encoded with transaction data 122 such as merchant identification (Merchant ID) types of electronic payment accepted by the merchant (e.g. VISA, MASTERCARD, etc.).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide merchant identification and payment type information as taught by Dryer et al. to provide a system and method where authorization data is shared between the mobile communication device and the electronic payment device without providing electronic payment instrument (e.g. credit card) data to the merchant (Abstract).

However, Sincai and Dryer et al. are silent regarding an identifier of the secure element in the contactless card or the POS device.

Florek et al. teaches an identifier of the secure element in the contactless card or the POS device (pg.10, ¶ [0089] discusses in its hardware on the SAM card 42 the Sales Device 28 encompasses a Secure Element 6 into which the POS payment terminal 27 identification and also the Master Key for the encryption of the communicated data is loaded).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen and Dryer et al., to include the ability to provide information identifying a merchant sales device with a secure element within a mobile transactions as taught by Florek et al. to provide a method of direct debit payment using a contactless transmission link and describes a configuration, in which a temporary payment terminal, with simplified structure that is intended above all for small business premises, can be created using a mobile communication device. The solution refers to increase in security and comfort in paying over the mobile communication device with removable memory card for example in the form of a micro SD card (pg.1, ¶ [0001]).

As per Claim 7, Sincai discloses the claimed invention. However, Sincai is silent regarding

wherein said sending the payment request from the mobile device to a payment gateway comprises

transporting the payment request to the payment gateway, wherein the payment gateway is configured to perform the monetary transaction per the payment request by deducting an amount from an account owned by the user.

Mullen et al. teaches wherein said sending the payment request from the mobile device to a payment gateway comprises:

transporting the payment request to the payment gateway (pg.13, ¶ [0149] discusses mobile device 2302 may customize a payment message to remote application 2308 that includes only the filtered subset of data that is needed by remote application 2308 to complete the purchase transaction),

wherein the payment gateway is configured to perform the monetary transaction per the payment request by deducting an amount from an account owned by the user (pg.11, ¶ [0137] discusses enable a funds transfer from a source account (e.g., an account associated with a payment card that is

tapped against a display of a mobile device) to a target account (e.g., a car loan account). Portion 2002 may, for example, list account details that may be associated with a target account (e.g., an account number associated with a car loan, the payoff amount, and the amount due). Portion 2002 may, for example, include details that may be associated with a target account that a mobile device has collected from a network entity (e.g., a bank) via a network connection between the mobile device and the network entity).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai to include the ability for the mobile device to generate a payment message as taught by Mullen et al. to provide a mobile device to [may] provide payment acceptance for purchases, payments and/or money transfers by accepting payment information from a powered, or a non-powered, card using a contactless communication channel formed between the card and the mobile device (Abstract).

However, Sincai and Mullen et al. fails to explicitly state a secure channel and is silent regarding generating an electronic notification for sending to the POS device.

Shank et al. teaches a secure channel (pg.5, ¶ [0053] discusses each device 12 may open a connection with the gateway 14. The connections may be opened according to any suitable network communications protocol. The connections may be secured by any suitable security protocol, such as Secure Socket Layer (SSL)).

Shank further teaches generating an electronic notification for sending to the POS device (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232. Sending the result to the billing device 16b from the gateway 14, rather than from the paying device, may reduce the risk of fraud).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a security

protocol and provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 8, Sincai discloses the method as recited in claim 7, wherein said displaying the electronic invoice on the display of the mobile device comprises:

allowing the user to modify the total amount in the electronic invoice when needed (pg.6, ¶ [0171] discusses the end user receives the bill he may select/deselect purchased items, decide to pay just part of the sum, set additional attributes (such as tip amount, number of payments, split tab etc.) and change the payment means (which was suggested automatically by the system servers 504) and approves/denies the payment[6]);

paying the total amount with an electronic payment provided by an installed module in the mobile device (pg.6, ¶ [0171] end user may approve transaction).

However, Sincai fails to explicitly state paying the total amount with an electronic payment provided by an installed module in the mobile device, wherein the installed module in the mobile device is configured to generate the payment request including the data pertaining to the electronic invoice to the payment gateway for processing.

Mullen et al. teaches paying the total amount with an electronic payment provided by an installed module in the mobile device (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement),

[6] Examiner is construing the ability to enter an additional attributes, such as tip, as modifying the total.

wherein the installed module in the mobile device is configured to generate the payment request including the data pertaining to the electronic invoice to the payment gateway for processing (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai to include the ability for the mobile device to generate a payment message as taught by Mullen et al. to provide a mobile device to [may] provide payment acceptance for purchases, payments and/or money transfers by accepting payment information from a powered, or a non-powered, card using a contactless communication channel formed between the card and the mobile device (Abstract).

As per Claim 9, Sincai discloses the method of the claimed invention. However, Sincai is silent regarding wherein data exchange between the mobile device and the payment gateway.

Mullen teaches wherein data exchange between the mobile device and the payment gateway (pg.10, ¶ [0128] discusses a mobile device may communicate payment information to a payment server to complete a purchase transaction).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Sincai to include the ability for the mobile device to generate a payment message as taught by Mullen et al. to provide a mobile device to [may] provide payment acceptance for purchases, payments and/or money transfers by accepting payment information from a powered, or a non-powered, card using a contactless communication channel formed between the card and the mobile device (Abstract).

Sincai and Mullen discloses the claimed invention however fails to explicitly state a secure channel.

Shank et al. teaches a secure channel (pg.5, ¶ [0053] discusses each device 12 may open a connection with the gateway 14. The connections may be opened according to any suitable network communications protocol. The connections may be secured by any suitable security protocol, such as Secure Socket Layer (SSL)).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a secure connection between mobile devices and a payment gateway to complete a payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 10, Sincai and Dryer et al. discloses the method of the claimed invention. However, Sincai and Dryer et al. are silent regarding wherein the mobile device includes a secure element providing security and confidentiality required to support secure data communication between the mobile device and the payment gateway.

Florek et al. teaches wherein the mobile device includes a secure element that provides security and confidentiality required to support secure data communication between the mobile device and the payment gateway (Figure 6, depicts Micros 18 for insertion into customer mobile phone having Secure Element 31).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen and Dryer et al., to include the ability to provide a customer mobile phone with a secure element to conduct mobile transactions as taught by Florek et al. to provide a method of direct debit payment using a contactless transmission link and describes a configuration, in which a temporary payment terminal, with simplified structure that is

intended above all for small business premises, can be created using a mobile communication device. The solution refers to increase in security and comfort in paying over the mobile communication device with removable memory card for example in the form of a micro SD card (pg.1, ¶ [0001]).

As per Claim 11, Sincai discloses the method of the claimed invention, wherein said notifying the user in the mobile device that a monetary transaction per the payment request has been successfully completed with the POS device comprising: sending a notification of successful payment to the merchant of the POS device (pg.6, ¶ [0173] discusses the system servers 504 perform the authorization process 201 vis-a-vis the acquiring bank and return it's response (approved/denied) to both the PoS 503, which sends back the response to the cashier 502, and the end-user 501).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wentker et al. U.S. Patent Application Publication 2008/0167017 discusses a mobile payment management.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHFORD S HAYLES whose telephone number is (571)270-5106. The examiner can normally be reached on M-F 6AM-4PM with Flex.

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, Fahd Obeid can be reached on 5712703324. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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

/ASHFORD S HAYLES/
Primary Examiner, Art Unit 3687

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	Examiner ASHFORD S HAYLES	Art Unit 3687	Page 1 of 6

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*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.

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	Examiner ASHFORD S HAYLES	Art Unit 3687	Page 2 of 6

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*	H	US-20110117839-A1	05-2011	Rhelimi; Alain	G06K19/0719	455/41.1
*	I	US-8646059-B1	02-2014	von Behren; Rob	G06Q20/367	719/311
*	J	US-8196131-B1	06-2012	von Behren; Rob	G06Q20/367	705/64
*	K	US-20130221092-A1	08-2013	Kushevsky; Mikhail	G06Q20/3672	235/379
*	L	US-20130218766-A1	08-2013	Mueller; Michael	G06Q20/32	705/42
*	M	US-20080093467-A1	04-2008	Narendra; Siva G.	G06Q20/341	235/492

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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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*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.

Notice of References Cited	Application/Control No. 14/728,349	Applicant(s)/Patent Under Reexamination Xie et al.	
	Examiner ASHFORD S HAYLES	Art Unit 3687	Page 3 of 6

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20110251952-A1	10-2011	Kelly; Mary L.	G06Q20/14	705/40
*	B	US-20130024383-A1	01-2013	Kannappan; Sasikumar	G06Q20/40	705/71
*	C	US-20130132219-A1	05-2013	Liberty; Michael A.	G06Q20/202	705/21
*	D	US-20130334318-A1	12-2013	Wakerly; Michael John	G06Q20/352	235/492
*	E	US-20130173736-A1	07-2013	KRZEMINSKI; Marek	H04W12/10	709/213
*	F	US-20130171929-A1	07-2013	ADAMS; NEIL PATRICK	H04W4/80	455/41.1
*	G	US-20130152185-A1	06-2013	Singh; Ravi	G06F21/35	726/9
*	H	US-20130151400-A1	06-2013	Makhotin; Oleg	G06Q20/3227	705/39
*	I	US-20130138959-A1	05-2013	PELLY; Nicholas Julian	H04L9/083	713/168
*	J	US-20130124349-A1	05-2013	Khan; Mohammad	G06Q20/36	705/21
*	K	US-20130103574-A1	04-2013	Conrad; Abbe Elizabeth	G06Q20/36	705/39
*	L	US-20130060618-A1	03-2013	Barton; Loren	G06Q20/3223	705/14.23
*	M	US-20120304255-A1	11-2012	Carnes; Daniel Wilson	H04L9/3234	726/3

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*	A	US-20120078792-A1	03-2012	Bacastow; Steven V.	G06Q20/3223	705/44
*	B	US-20130097031-A1	04-2013	Royyuru; Vijay Kumar	G06Q20/20	705/16
*	C	US-20110113473-A1	05-2011	Corda; Alexandre	G06Q20/32	726/3
*	D	US-20110087610-A1	04-2011	Batada; Asif	G06F21/72	705/318
*	E	US-20110078081-A1	03-2011	Pirzadeh; Kiushan	G06Q20/20	705/44
*	F	US-8601266-B2	12-2013	Aabye; Christian	G06F21/445	713/168
*	G	US-8577731-B1	11-2013	Cope; Warren B.	G06Q20/3224	705/17
*	H	US-20100211504-A1	08-2010	Aabye; Christian	G06Q20/10	705/44
*	I	US-20130060699-A1	03-2013	Romagnoli; Amy Sobocinski	G06Q20/10	705/44
*	J	US-20120136786-A1	05-2012	Romagnoli; Amy Sobocinski	G06Q20/10	705/44
*	K	US-20140012751-A1	01-2014	Kuhn; Stephen	G06Q20/36	705/41
*	L	US-20120072309-A1	03-2012	Hultberg; Stefan	G06Q20/32	705/26.41
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Notice of References Cited	Application/Control No. 14/728,349	Applicant(s)/Patent Under Reexamination Xie et al.	
	Examiner ASHFORD S HAYLES	Art Unit 3687	Page 5 of 6

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
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*	B	US-20140013406-A1	01-2014	Tremlet; Christophe	G06F21/32	726/5
*	C	US-8341083-B1	12-2012	Jain; Deepak	G06K19/07739	705/41
*	D	US-20130346305-A1	12-2013	Mendes; Rui	G06Q20/351	705/41
*	E	US-20130246258-A1	09-2013	Dessert; Robert	G06Q20/40	705/41
*	F	US-20130226812-A1	08-2013	Landrok; Mads	G06Q20/32	705/67
*	G	US-20140095382-A1	04-2014	Desai; Mehul	G06Q20/322	705/41
*	H	US-20120290376-A1	11-2012	Dryer; Trevor D.	G06Q20/3278	705/14.23
*	I	US-20090164330-A1	06-2009	Bishop; Fred A.	G06Q20/02	705/19
*	J	US-20110155800-A1	06-2011	Mastrangelo; Edward L.F.	G06Q20/352	235/379
*	K	US-20120143702-A1	06-2012	Ho; Yu-Ping	G06Q20/10	705/16
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Notice of References Cited	Application/Control No. 14/728,349	Applicant(s)/Patent Under Reexamination Xie et al.	
	Examiner ASHFORD S HAYLES	Art Unit 3687	Page 6 of 6

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
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*	B	US-20090307140-A1	12-2009	Mardikar; Upendra	G06Q20/1085	705/71
*	C	US-20110042456-A1	02-2011	Masaryk; Michal	G06Q20/20	235/380
*	D	US-20100274726-A1	10-2010	Florek; Miroslav	G06Q20/20	705/72
*	E	US-20100274677-A1	10-2010	Florek; Miroslav	G06Q20/10	705/16
*	F	US-20120116963-A1	05-2012	Klein; Charmaine	G06Q20/102	705/40
*	G	US-20100114773-A1	05-2010	Skowronek; Daniel P.	G06Q20/40	705/44
*	H	US-20110066550-A1	03-2011	Shank; Clinton L.	G06Q20/1085	705/43
*	I	US-20130138517-A1	05-2013	Khan; Sameer Mohamed	G06Q30/00	705/16
*	J	US-20080167017-A1	07-2008	Wentker; Dave	G06Q20/10	455/414.1
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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14/728,349	Xie et al.
	Examiner	Art Unit
	ASHFORD S HAYLES	3687

CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
705	21	09/21/2017	ASH

* 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
EAST (SEE ATTACHMENTS)	09/21/2017	ASH
UPDATED EAST (SEE ATTACHMENTS)	04/06/2018	ASH
COMMON CITATION (http://ccd.fiveipoffices.org) (SEE ATTACHMENTS)	04/06/2018	ASH
UPDATED EAST (SEE ATTACHMENTS)	09/11/2018	ASH

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

/ASHFORD S HAYLES/ Primary Examiner, Art Unit 3687	

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	14/728,349	Xie et al.
	Examiner	Art Unit
	ASHFORD S HAYLES	3687

✓	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	09/21/2017	04/06/2018	09/11/2018						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
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	8	✓	✓	✓						
	9	✓	✓	✓						
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	19	✓	✓	✓						
	20	✓	✓	✓						

Bibliographic Data

Application No: 14/728,349

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /ASHFORD S HAYLES/ (Examiner's Signature) | ASH (Initials)

Title: Method and apparatus for mobile payments

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
06/02/2015	705	3687	RFID-085C1
RULE			

APPLICANTS

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INVENTORS

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Liang Seng Koh Fremont, CA, UNITED STATES

Hsin Pan Fremont, CA, UNITED STATES

CONTINUING DATA

This application is a CON of 13853937 03/29/2013 PAT 9047601

13853937 has PRO of 61618802 04/01/2012

13853937 is a CIP of 13350832 01/16/2012

13350832 is a CIP of 11534653 09/24/2006 PAT 8118218

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Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	0	"20120290472"	USPAT; USOCR	OR	OFF	2018/09/12 11:36
L3	2	"20120290472"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/09/12 11:36
S1	758	(electronic near (purse or wallet)) and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:44
S2	138	S1 and emulat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S3	137	S2 and (app or application or applet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S4	86	S3 and PIN	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S5	43	S4 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S6	3	(("20130124351") or ("20080011833") or ("20130132219")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/04/22 17:49
S7	156	(mobile or portable or wireless) near (POS) and NFC	US-PGPUB; USPAT; USOCR;	OR	ON	2014/04/23 16:54

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S8	34	(mobile or portable or wireless) near (POS) with NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 16:54
S9	0	(smartcard) near (POS) with NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:00
S10	2	(smartcard) near (POS) and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:00
S11	0	(smartcard) near ("transaction terminal") and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:05
S12	76	(smartcard) near NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:05
S13	40	S12 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:06
S14	98	("smart card" or "chip card" or EMV) near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:11
S15	38	(contactless) near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:17
S16	217	(contactless) near (POS or payment or	US-PGPUB;	OR	ON	2014/04/24

		transaction) and (electronic or digital) near (receipt or bill or invoice)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			10:18
S17	217	((contactless) near (POS or payment or transaction)) and (electronic or digital) near (receipt or bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:18
S18	165	S17 and (provision$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:18
S19	124	S18 and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:18
S20	58	S17 and (restaurant)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:30
S21	139	((contactless or NFC) near (POS or payment or transaction)) and (send$4 or transmit$4) near (receipt or bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:46
S22	59	S21 and (restaurant)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:46
S23	64	(wireless or mobile) near POS and (contactless near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/25 21:46
S24	4	POS near (contactless near (card))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/04/25 22:10

			IBM_TDB			
S25	1838	POS near ((card))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/25 22:11
S26	100	S25 and (contactless near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/25 22:11
S27	16	(portable) near POS and ((nfc or contactless) near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 20:39
S28	17	folio and nfc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:33
S29	0	(restaurant near folio) and nfc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:37
S30	273	(restaurant or table) and (nfc near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:38
S31	165	S30 and provision$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:38
S32	55	S31 and emulat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:39
S33	32	proximity near mobile near payment	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2014/04/26 21:46

			EPO; JPO; DERWENT; IBM_TDB			
S34	403	(mobile near (transaction or payment)) and (smartcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:58
S35	29	(mobile near (transaction or payment)) with (smartcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:59
S36	0	(smartcard-smartcard) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:14
S37	9	(mobile near phone) with (smartcard)near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:14
S38	2	(mobile near phone) near (transaction or payment) and (smartcard)near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:27
S39	0	(mobile near phone) near (transaction or payment) and (smartcard)near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:28
S40	9	(mobile near phone) and (smartcard)near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:29
S41	67	(person-person) or (peer-peer) and (smartcard near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:35
S42	4	(smartcard or chipcard) and (POS near emulat$4)	US-PGPUB; USPAT;	OR	ON	2014/04/26 22:48

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S43	9	(nfc) and (POS near emulat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:49
S44	0	proximity near smartcard near payment	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:59
S45	3	"20130124351"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:04
S46	54	(portable or mobile or slim or wireless) near (POS or "transaction terminal") and (nfc or emv or smartcard) near (reader)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:14
S47	67	(portable or mobile or slim or wireless) near (nfc or emv or smartcard) near (POS or "transaction terminal" or reader)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:17
S48	123	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (POS or "transaction terminal" or reader)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:25
S49	0	(portable or mobile or slim or wireless) near (rfid) near (POS or "transaction terminal")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 07:22
S50	99	(rfid) near (POS or "transaction terminal")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:18

S51	598	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) and (mobile or wireless or cellular) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:19
S52	104	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (device or terminal) and (mobile or wireless or cellular) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:21
S53	11	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (device or terminal) and (digital or electronic) near (bill or invoice or check)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:28
S54	6	(portable or mobile or wireless) near (contactless) near (transaction or payment) near (device or terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:32
S55	0	S51 and (person-person or peer-peer) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:42
S56	5	(person-person or peer-peer) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:42
S57	0	("peer to peer") near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:42
S58	1128	(peer) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:43
S59	133	S58 and (nfc or emv or smartcard or contactless) near (device or terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/04/29 09:43

			DERWENT; IBM_TDB			
S60	10	S59 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:49
S61	550	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (device or terminal or scanner)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 10:05
S62	1	S61 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 10:05
S63	0	("2013/0221092").URPN.	USPAT	OR	ON	2014/04/29 11:16
S64	229	(mobile or cellular near phone) and (smartcard)near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:27
S65	180	((mobile or cellular) near phone) and (smartcard)near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:27
S66	1	S65 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:28
S67	46	S65 and emulat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:29
S68	1776	(electronic near (transaction or payment) near card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:32

S69	397	S68 and (nfc or emv or smartcard or contactless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:32
S70	49	S69 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:32
S71	3	"20130024383"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 07:06
S72	3	"20130132219"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:14
S73	258	TSM with (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:32
S74	161	S73 and (nfc or emv or smartcard or chipcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:32
S75	14	S74 and SAM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:33
S76	147	S74 and "secure element"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:33
S77	2	"20130218766"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/05/02 11:58

			DERWENT; IBM_TDB			
S78	41	(TSM or "trusted service") and (transaction or payment) near sett$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 13:56
S79	3	13/245498	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 13:59
S80	531	provision$4 near (POS or merchant or vendor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 14:07
S81	3	S80 and (TSM or "trusted service") and (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 14:08
S82	2	12/563444	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 18:16
S83	27	(TSM or "trusted service") and (transaction or payment) near settl$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 18:45
S84	5	(TSM or "trusted service") and (purchase) near settl$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 19:55
S85	88	(TSM or "trusted service") and (verif$4 or confirm$4) near (purchase or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 19:56
S86	34	S85 and "secure element"	US-PGPUB; USPAT; USOCR;	OR	ON	2014/05/02 19:58

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S87	393	(TSM or "trusted service") and (purchase or transaction) near (process$4 or settl$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:17
S88	152	S87 and (smartcard or chipcard or nfc)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:19
S89	131	S88 and (secure near element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:19
S90	58	S89 and (electronic near (purse or wallet))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:20
S91	19	S89 and (SAM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:20
S92	2230	(electronic near (purse or wallet)) and (payment or transaction) near (settl$4 or process$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 14:42
S93	41	S92 and (TSM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 14:43
S94	59	(mobile near nfc near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/10 17:20
S95	415	(smartcard or chipcard) and (mobile	US-PGPUB;	OR	ON	2014/05/11

		near (payment or transaction))	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:04
S96	54	S95 and (secure near element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/11 15:05
S97	53	S96 and (provisioning or personal$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/11 15:24
S98	25	S96 and (provisioning or personaliz$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/11 15:24
S99	78	(smartcard or chipcard) and (nfc near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 15:16
S100	42	S99 and (payment near process$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 15:16
S101	248	(nfc with (invoic$4 or bill$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:13
S102	78	S101 and (mobile near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:14
S103	25	(nfc with mobile near (invoic$4 or bill$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/05/13 22:49

			IBM_TDB			
S104	0	(secure near element) and (mobile near (billing or invoic$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:52
S105	549	(secure near element) and ((billing or invoic$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:52
S106	83	S105 and (mobile near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:53
S107	41	(smartcard or chipcard) and ((storing or saving) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:07
S108	0	(nfc near (transaction or payment)) and ((storing or saving) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:08
S109	175	(nfc near (transaction or payment)) and ((bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:08
S110	0	(secure adj element) and ((storing or saving) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:09
S111	107	(secure adj element) and ((transmit$4 or receiv$4) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:09
S112	2	S111 and (nfc near (transaction or payment)) and ((bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2014/05/14 23:10

			EPO; JPO; DERWENT; IBM_TDB			
S113	2	S111 and (nfc near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10
S114	106	(nfc near (transaction or payment)) and ((bill or invoice) near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10
S115	15	S114 and TSM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10
S116	589	(smartcard or chipcard or emv) and ((bill or invoice) near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S117	0	S116 and TSM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S118	246	S116 and trusted	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S119	27	S116 and trusted near service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S120	55	(smartcard or chipcard or emv) with ((bill or invoice) near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:14
S121	15	"security authentication module" and (electronic or virtual) near (purse or	US-PGPUB; USPAT;	OR	ON	2014/05/15 14:36

		wallet)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S122	10	"security authentication module" and (mobile near (purchase or payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/15 14:47
S123	66	(personal$4) near (secure adj element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/02 14:59
S124	21	S123 and (identif$4 near issuer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/02 15:00
S125	2	"20120290376"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/02 16:15
S126	1	((identif$4 or match$4 or locat$4) near issuer) same ((match$4 or compar$4) near (device or element) near (ID or identif$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:16
S127	0	((identif$4 or match$4 or locat$4) near issuer) same ((match$4 or compar$4) near (secure adj element) near (ID or identif$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:17
S128	4	((identif$4 or match$4 or locat$4) near issuer) same ((secure adj element) near (ID or identif$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:18
S129	1	(mobile-mobile) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:40

S130	30	(mobile adj mobile) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:40
S131	1	S130 and (secure adj element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:41
S132	1102	(smartcard or chipcard) and (fund adj transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S133	1	S132 and (personal$4 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S134	97	S132 and (personal$6near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S135	1	S132 and (personal$6 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S136	11	(Fund adj transfer) and (personal$6 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:56
S137	137	("20010011250" | "20010021927" | "20010027441" | "20010039657" | "20020004783" | "20020042776" | "20020068554" | "20020194138" | "20030023954" | "20030074579" | "20030140176" | "20040029569" | "20040030601" | "20040123152" | "20040128259" | "20040140351" | "20050001711" | "20050071418" | "20050091659" | "20050102679" | "20050149926" | "20050184163" | "20050184164" | "20050184165" | "20050188360" | "20050193218" |	US-PGPUB; USPAT; USOCR	OR	ON	2014/10/09 15:57

		"20050222961" | "20060036570" | "20060041507" | "20060126831" | "20060165060" | "20060219774" | "20070067325" | "20070090195" | "20070135164" | "20070169043" | "20070226786" | "20080056501" | "20080073426" | "20080130902" | "20080162834" | "20080167988" | "20080208681" | "20080208762" | "20080270253" | "20090158028" | "20090239512" | "20090261172" | "20090307142" | "20090312011" | "20100012732" | "20100042824" | "20100050271" | "20100058463" | "20100063893" | "20100088237" | "20100114731" | "20100131413" | "20100138518" | "20100203870" | "20100205432" | "20100207742" | "20100211507" | "20100250956" | "20100291896" | "20100291904" | "20100306076" | "20100306107" | "20100306531" | "20100323681" | "20100330958" | "20110016275" | "20110029671" | "20110072425" | "20110078081" | "20110087610" | "20110113473" | "20110131421" | "20120009873" | "20120129452" | "4851653" | "5221838" | "5991399" | "6005942" | "6092201" | "6101477" | "6141752" | "6151657" | "6230267" | "6233683" | "6402028" | "6434238" | "6484174" | "6601761" | "6609113" | "6633984" | "6647260" | "6792536").PN. OR ("6823520" | "6907608" | "6922835" | "6963270" | "7093122" | "7140549" | "7152782" | "7159180" | "7165727" | "7191288" | "7206769" | "7232073" | "7243853" | "7275685" | "7346170" | "7349885" | "7353396" | "7360691" | "7374099" | "7382762" | "7395535" | "7469151" | "7478389" | "7502946" | "7607175" | "7631346" | "7631810" | "7708198" | "7712658" | "7739731" | "7860486" | "7967215" | "8120460" | "8126806" | "8150767" | "8171137").PN. OR ("8429409").URPN.				
S138	0	contactless near (Fund adj transfer) and ((secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:59
S139	0	contactless near (Fund adj transfer$4) and ((secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:59
S140	11	(Fund adj transfer$4) and (personal$6 near (secure adj element))	US-PGPUB; USPAT;	OR	ON	2014/10/09 16:00

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S141	9	S132 and (updat$4 or modify$4 or edit$4 or chang$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:02
S142	8	(contactless near (transaction or payment)) and (updat$4 or modify$4 or edit$4 or chang$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:03
S143	580	(contactless near (transaction or payment)) and (fund$1 near transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:04
S144	9	mobile adj (contactless near (transaction or payment)) and (fund$1 near transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:04
S145	5	(contactless) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:06
S146	1	(contactless near (transaction or payment)) and (virtual near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:08
S147	0	(contactless near (transaction or payment)) and (digital near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:09
S148	0	(EMV near (transaction or payment)) and (digital near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:12

S149	1	(EMV near (transaction or payment)) and ((digital or electronic or mobile or wireless)near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:13
S150	41	(EMV near (transaction or payment)) and ((bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:13
S151	56	((EMV or chipcard or smartcard) near (transaction or payment)) and ((digital or electronic or mobile or wireless)near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:13
S152	64	((contactless) near (transaction or payment)) and ((digital or electronic or mobile or wireless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:17
S153	62	((contactless) near (transaction or payment)) and ((digital or electronic or paperless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:53
S154	6410	((digital or electronic or paperless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:54
S155	2	"20130151400"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:03
S156	0	((mobile or wireless or cellular) adj (contactless) near (purchase or transaction or payment)) and ((digital or electronic or mobile or wireless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:05
S157	73	((mobile or wireless or cellular) adj (contactless) near (purchase or transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/10/09 17:05

			DERWENT; IBM_TDB			
S158	0	S157 and ((digital or electronic or mobile or wireless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:05
S159	0	S157 and ((digital or electronic or paperless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:05
S181	215	(contactless or NFC or wireless or proximity) adj (billing or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 15:36
S182	8	S181 and (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 15:39
S183	52	(contactless or NFC or wireless or proximity) adj (payment or transaction or purchase) and (electronic adj (invoic$4 or billing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 15:41
S184	886	(contactless or NFC or wireless or proximity) adj (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 18:00
S185	32	S184 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:01
S186	648	POS adj card	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:29
S187	7	S186 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR;	OR	ON	2017/09/18 18:29

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S188	1	cashless adj POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:31
S189	2	cashless near POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:32
S190	283	cashless same POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:32
S191	2	S190 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:35
S192	17804	(SIM) same (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:12
S193	564	(SIM adj card) same (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:12
S194	9	(SIM adj card) near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:12
S195	11	("20010056398" | "20020097715" | "20020120537" | "20030060246" | "20070295803" | "20100030634" | "20100161478" | "6598028" | "7540408" | "7603312" | "8281991").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/09/18 20:15
S196	2	(card-to-card) near payment	US-PGPUB; USPAT;	OR	OFF	2017/09/18 20:17

			USOCR			
S197	48	POS and generat$4 near (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:18
S198	3936	(mobile or m) adj POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:49
S199	4	S198 and generat$4 near (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:49
S200	16	S198 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:49
S201	114	S198 and (contactless or NFC or wireless or proximity) adj (payment or transaction or purchase)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 20:54
S202	109	S198 and (SIM adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:55
S203	114	S198 and ((nfc or contactless or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:55
S204	8	S203 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:56
S205	234	merchant adj wallet	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2017/09/18 20:58

			EPO; JPO; DERWENT; IBM_TDB			
S206	51	merchant adj (mobile adj wallet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:58
S207	222	((mobile or m) adj POS) and ((contactless or smart or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:05
S208	69	((mobile or m) adj POS) same ((contactless or smart or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:05
S209	1545	((payment or transaction) adj terminal) same ((contactless or smart or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:16
S210	0	S209 and generat$4 near (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:16
S211	21	S209 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:16
S212	91	((peer-to-peer) adj (payment or transaction)) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 21:20
S213	58	S212 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:21
S214	0	((peer-to-peer) adj (POS)) and (contactless or NFC or wireless or	US-PGPUB; USPAT;	OR	OFF	2017/09/18 21:22

		proximity) adj (card)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S215	1	((peer-to-peer) adj (POS))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 21:22
S216	4	("20070233554" | "20100227553" | "20120092137" | "8229354").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/09/18 21:23
S217	1	(POS near emulat$4) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 21:24
S218	56	(POS near application) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:08
S219	11745	POS and SOC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:09
S220	2680	POS and (system near chip)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:10
S221	366	POS and (system-on-chip)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:10
S222	12	POS same (system-on-chip)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:10
S223	47	((touch or tap) adj (payment or transaction)) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/09/19 09:13

			EPO; JPO; DERWENT; IBM_TDB			
S224	8566	(contactless or NFC or wireless or proximity) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:21
S225	174	S224 and (electronic or digital) adj (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:22
S227	11	S224 and (e-bill)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:23
S228	8566	(contactless or NFC or wireless or proximity) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:15
S229	5	S228 and (electronic or digital) adj (statement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:15
S230	887	(contactless or NFC or wireless or proximity) adj (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:17
S231	31	S230 and (electronic or digital) adj (bill$4 or invoic$4 or statement)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:18
S232	3518	(POS) and ((digital or electronic or e) adj (wallet or purse))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:23
S233	282	S232 and (electronic or digital) adj (bill$4 or invoic$4 or statement)	US-PGPUB; USPAT;	OR	OFF	2017/09/19 12:23

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S234	92	S233 and (contactless or NFC or wireless or proximity) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:23
S235	25	(POS) near ((digital or electronic or e) adj (wallet or purse))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:25
S236	189	(merchant) near ((digital or electronic or e) adj (wallet or purse))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 12:53
S237	4	"20070131780"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/19 16:42
S238	15	("2007/0131780").URPN.	USPAT	OR	OFF	2017/09/19 16:43
S239	184	(nfc or emv or smartcard or contactless or proxmity or chip) near (payment or purchase or transaction) and ((electronic or e or digital) adj (bill$4 or invoic$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/19 17:33
S240	59	(nfc or emv or smartcard or contactless or proxmity or chip) near (payment or purchase or transaction) same ((electronic or e or digital) adj (bill$4 or invoic$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/19 17:34
S241	4	("2003023080").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 18:17
S242	2	("20040127256").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/09/19 18:20

			DERWENT; IBM_TDB			
S243	1	(mobile or portable) adj POS and ((contactless or nfc or proximity) adj (adapter))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 18:21
S244	294	("2004/0127256").URPN.	USPAT	OR	OFF	2017/09/19 18:22
S245	0	(10/625823).APP.	USPAT; USOCR	OR	OFF	2017/09/19 18:25
S246	95	POS near (purse or wallet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 07:00
S247	2	"20120290472"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 08:39
S248	1145	POS same (contactless or proximity or RFID) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 11:05
S249	44	S248 and (fund adj transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 11:23
S250	76	S248 and ((merchant or vendor) near (purse or wallet))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 11:26
S251	67	S248 and ((merchant or vendor) adj (purse or wallet))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 11:26
S252	256	virtual adj POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/09/25 12:06

			DERWENT; IBM_TDB			
S253	14	S252 and (contactless or proximity or RFID) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 12:06
S254	7	S252 and (emv) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 12:37
S255	3	emv adj POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 12:38
S256	0	"201000274677"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 13:04
S257	3	"20100274677"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 13:04
S258	203	(contactless or proximity or RFID) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 17:08
S259	0	(NFC) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 17:08
S260	7	S258 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 17:08
S261	16	(NFC) near (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR;	OR	OFF	2017/09/25 17:08

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S262	0	(smartcard) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 17:10
S263	0	S258 and (transaction or payment) adj terminal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 17:12
S264	6563	((customer or client) adj side) and ((payment or transaction) adj process$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:07
S265	87	S264 and (electronic near (purse or wallet)) and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 21:07
S266	34	(merchant-to-person)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 21:17
S267	3	(person-to-merchant) and (contactless or proximity or RFID) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:19
S268	0	(person-to-merchant) and (nfc) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:19
S269	23	(person-to-merchant) and (nfc)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:19
S270	618	(contactless or proximity or RFID) adj	US-PGPUB;	OR	OFF	2017/09/25

		(payment or transaction) same (wallet or purse)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			21:22
S271	1	S270 and (security adj element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:22
S272	243	S270 and (secure adj element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:22
S273	4	S272 and (electronic or digital or e) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:23
S274	0	S272 and (wireless or paperless or nfc) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:24
S275	5	(contactless or proximity or RFID or nfc) adj (payment or transaction) and (wireless or paperless or nfc) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:24
S276	78	(contactless or proximity or RFID or nfc) adj (payment or transaction) near request	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:25
S277	11	(person-to-merchant) and ((smart or chip or RFID or IC) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:27
S278	12	(person-to-merchant) and ((contactless or smart or chip or RFID or IC) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/09/25 21:27

			IBM_TDB			
S279	930	(person-to-person) and ((contactless or smart or chip or RFID or IC) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:27
S280	443	S279 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:27
S281	121	S280 and (transmit$4 or send$4) adj (payment or transaction) near request	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:28
S282	15	(person-to-person) same ((contactless or smart or chip or RFID or IC) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:28
S283	82	S281 and (electronic near (purse or wallet))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 21:28
S284	41	S281 and mobile adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 21:28
S285	72	business-to-consumer and mobile adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 21:32
S286	12	S285 and ((contactless or smart or chip or RFID or IC) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 21:32
S287	5	card-to-card and (nfc or contactless or RFID or proximity or wireless) adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2017/09/25 21:34

			EPO; JPO; DERWENT; IBM_TDB			
S288	7	card-to-card and (nfc or contactless or RFID or proximity or wireless) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 21:34
S289	203	(contactless or proximity or RFID or nfc) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 22:06
S290	0	(card-to-card) adj (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 22:06
S291	45	(card-to-card) same (invoic$4 or bill$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/25 22:06
S292	0	S289 and mobile adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/25 22:09
S293	148	(client-side) adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:35
S294	1	S293 and (mobile adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:35
S295	0	S293 and (nfc adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:35
S296	212	(client adj side) adj (transaction or payment)	US-PGPUB; USPAT;	OR	OFF	2017/10/04 23:35

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S297	6	S296 and (mobile adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:36
S298	2	S296 and (nfc adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:36
S299	358	(closed-loop adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:37
S300	1	S299 and (nfc adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:37
S301	0	S300 and (mobile adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/04 23:37
S302	6	"20100114773"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 08:56
S303	459	(proximity or contactless or smartcard) adj POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 10:06
S304	91	S303 and (mobile adj (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 10:07

S305	535	(mobile or virtual) adj (wallet or purse) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 12:54
S306	339	S305 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 12:55
S307	179	S306 and (secure adj element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 12:57
S308	83	S307 and (smart adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 12:57
S309	4	"20140187153"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 13:12
S310	271	(smartcard) and (electronic or digital) adj (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:37
S311	53	(smartcard) with (electronic or digital) adj (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:38
S312	182	S310 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:38
S313	51	S311 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/05 20:39

			DERWENT; IBM_TDB			
S314	1265	(electronic or digital) adj (bill or invoice) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:40
S315	1267	(electronic or digital or virtual) adj (bill or invoice) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:40
S316	99209	nfc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:41
S317	66	S315 and nfc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 20:41
S318	90	S315 and (smartcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/05 21:04
S319	1372	(electronic or virtual or digital) adj (bill or invoice) adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/06 06:06
S320	50	S319 and (wireless or contactless or nfc or proximity) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/06 06:12
S321	376	(electronic or virtual or digital) adj (check) and (nfc or wireless or contactless or proximity) adj (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/06 06:16
S322	376	(electronic or virtual or digital) adj (check) and ((nfc or wireless or contactless or proximity) adj	US-PGPUB; USPAT; USOCR;	OR	ON	2017/10/06 06:16

		(transaction or payment))	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S323	207	S322 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/06 06:16
S324	79	S323 and (smartcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/06 06:16
S325	6	"20140143104"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/09 07:10
S326	3	"20100274677"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 08:38
S327	4	(("20090170559") or ("20120191612")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:46
S328	0	5748737/pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:48
S329	4	"5748737".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:48
S330	13595	(electronic or digital or virtual) adj (wallet or purse)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:49
S331	1082	S330 and (nfc or contactless or	US-PGPUB;	OR	OFF	2017/10/09

		proximity) adj (payment or transaction)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			11:49
S332	732	S331 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:50
S333	87	S332 and (electronic or digital or virtual) adj (bill or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:50
S334	25	(electronic or digital or virtual) adj (bill or invoic$4) adj (payment) and (nfc or contactless or proximity) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/09 11:54
S335	0	(nfc or contactless or proximity) adj (bill or invoic$4) adj (payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/10 06:09
S336	139452	restaurant brands.as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/10 13:01
S337	0	restaurantbrands.as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/10 13:01
S338	7	"20140006205"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 08:50
S339	6	"20130138517"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/04/06 08:52

			IBM_TDB			
S340	18375	(electronic or digital) near (bill$4 or invoic$4 or check)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 09:19
S341	5793	POS near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 09:20
S342	533	S340 and S341	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 09:20
S343	405	S342 and 705/$	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 09:20
S344	5	"20110066550"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/04/06 09:39
S345	6	(("20070253187") or ("20090309748") or ("20120323676")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/09/11 14:37
S346	17	nfc near (invoice or bill)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/09/11 14:40
S347	3	"20080167017"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/09/11 14:43
S348	4	"20120078701"	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/09/11 14:45

			EPO; JPO; DERWENT; IBM_TDB			
S349	98	(bar or QR or 2D) adj (invoice or bill)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/09/11 14:49
S350	61	("2013/0339253").URPN.	USPAT	OR	OFF	2018/09/11 14:55
S351	8	(("7152230") or ("6367011") or ("20130159710")).PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/09/11 17:34
S352	0	(13/594914).APP.	USPAT; USOCR	OR	OFF	2018/09/12 05:53

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S160	1647	705/21	USPAT	OR	ON	2015/03/26 16:56
S161	75	S160 and (electronic or digital) near (invoice or check)	USPAT	OR	ON	2015/03/26 16:57
S162	25	S161 and (smart or IC or RFID or EMV) adj card	USPAT	OR	ON	2015/03/26 16:57
S163	0	S162 and TSM	USPAT	OR	ON	2015/03/26 16:58
S164	16	S162 and S161 and provision$4	USPAT	OR	ON	2015/03/26 16:58
S165	16	S162 and provision$4	USPAT	OR	ON	2015/03/26 16:58
S166	0	S165 and TSM	USPAT	OR	ON	2015/03/26 16:58
S167	483	705/14.23	USPAT	OR	ON	2015/03/26 16:58
S168	10	S167 and (electronic or digital) near (invoice or check)	USPAT	OR	ON	2015/03/26 16:58
S169	0	S168 and TSM	USPAT	OR	ON	2015/03/26 16:58
S170	3229	705/41	USPAT	OR	ON	2015/03/26 16:58
S171	259	S170 and (electronic or digital) near (invoice or check)	USPAT	OR	ON	2015/03/26 16:59
S172	114	S171 and (smart or IC or RFID or EMV) adj card	USPAT	OR	ON	2015/03/26 16:59
S173	75	S172 and provision$4	USPAT	OR	ON	2015/03/26 16:59
S174	0	S173 and TSM	USPAT	OR	ON	2015/03/26 16:59

S175	0	S173 and (trusted near service near manag$5)	USPAT	OR	ON	2015/03/26 17:00
S176	0	S171 and (trusted near service near manag$5)	USPAT	OR	ON	2015/03/26 17:00
S177	8994	705/39	USPAT	OR	ON	2015/03/26 17:00
S178	743	S177 and (electronic or digital) near (invoice or check)	USPAT	OR	ON	2015/03/26 17:00
S179	206	S178 and (smart or IC or RFID or EMV) adj card	USPAT	OR	ON	2015/03/26 17:00
S180	1	S179 and (trusted near service near manag$5)	USPAT	OR	ON	2015/03/26 17:00

9/ 12/ 2018 1:48:08 PM
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PTO/SB/30 (08-00)
Approved for use through 10/31/2002 OMB 0651-0031
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REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL

Subsection (b) of 35 U.S.C. § 132, effective on May 29, 2000, provides for continued examination of an utility or plant application filed on or after June 8, 1995.
See The American Inventors Protection Act of 1999 (AIPA).

Application Number	14/728,349
Filing Date	06/02/2015
First Named Inventor	Xiangzhen Xie
Group Art Unit	3687
Examiner Name	HAYLES, ASHFORD S
Attorney Docket Number	RFID-085C1

This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.

NOTE: *37 C.F.R. § 1.114 is effective on May 29, 2000. If the above-identified application was filed prior to May 29, 2000, applicant may wish to consider filing a continued prosecution application (CPA) under 37 C.F.R. § 1.53 (d) (PTO/SB/29) instead of a RCE to be eligible for the patent term adjustment provisions of the AIPA. See Changes to Application Examination and Provisional Application Practice, Final Rule, 65 Fed. Reg. 50092 (Aug. 16, 2000); Interim Rule, 65 Fed. Reg. 14865 (Mar. 20, 2000), 1233 Off. Gaz. Pat. Office 47 (Apr. 11, 2000), which established RCE practice.*

1. Submission required under 37 C.F.R. § 1.114
   - a. [ ] Previously submitted
     - i. [ ] Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on _____ (Any unentered amendment(s) referred to above will be entered)
     - ii. [ ] Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
     - iii. [ ] Other _____
   - b. [X] Enclosed
     - i. [X] Amendment/Reply
     - ii. [ ] Affidavit(s)/Declaration(s)
     - iii. [ ] Information Disclosure Statement (IDS)
     - iv. [ ] Other _____
2. Miscellaneous
   - a. [ ] Suspension of action on the above-identified application is requested under 37 C.F.R. § 1.103(c) for a period of _____ months. (Period of suspension shall not exceed 3 months; Fee under 37 C.F.R. § 1.17(i) required)
   - b. [ ] Other _____
3. Fees — The RCE fee under 37 C.F.R. § 1.17(e) is required by 37 C.F.R. § 1.114 when the RCE is filed
   - a. [ ] The Director is hereby authorized to charge the following fees, or credit any overpayments, to Deposit Account No. _____
     - i. [X] RCE fee required under 37 C.F.R. § 1.17(e)
     - ii. [X] Extension of time fee (37 C.F.R. §§ 1.136 and 1.17)
     - iii. [ ] Other _____

   Small Entity
   - b. [ ] Check in the amount of $_____ enclosed
   - c. [X] Payment by credit card (Form PTO-2038 enclosed) paid via PAIR

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Name (Print/Type)	Joe Zheng	Registration No. (Attorney/Agent)	39,450
Signature	/ joe zheng /	Date	08/07/2017

CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner For Patents, Box RCE, Washington, DC 20231, or facsimile transmitted to the U.S. Patent and Trademark Office on:

Name (Print/Type)	Joe Zheng		
Signature	/ joe zheng /	Date	08/07/2017

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND Fees and Completed Forms to the following address: Assistant Commissioner for Patents, Box RCE, Washington, DC 20231.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Xiangzhen Xie et al
Title:	Trusted Service Management Process
Serial No.:	14/728,349
Filing Date:	06/02/2015
Confirmation:	5346
Examiner:	HAYLES, ASHFORD S
Group Art Unit:	3687
Docket No.:	RFID-085C1

Aug. 7, 2018

Mail Stop: AF/RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Response to Final OA

Dear Sir:

In response to Office Action dated 04/12/2018, the Applicant concurrently submitted USPTO Automated Interview Request (AIR) Form and respectfully requests the Examiner to call the undersigned for conference when ready to examine this instant application. Further the Applicant respectfully requests the Examiner to enter the following amendments:

AMENDMENTS TO THE CLAIMS are reflected in the listing of claims which begins on page 2 of this Response.

REMARKS/ARGUMENTS begin on page 9 of this Response.

AMENDMENTS TO THE CLAIMS

Please amend Claims 1-3, 5, 7, 9, 12-14 and 17-18 as follows:

1. (*Currently amended*) A method for mobile payment, the method comprising:

causing a mobile device to ~~receive~~ capture data ~~wirelessly~~ directly from a ~~medium~~point of sale (POS) device, the data including an electronic invoice and settlement information with a merchant associated with ~~the~~ a POS device, wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium;

displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device, wherein the mobile device is configured to execute an installed application therein to ~~communicate with the POS device~~capture the data from the medium;

receiving an entry by the mobile device, the entry including an additional amount from the user;

calculating a total amount by adding the additional amount to the amount in the electronic invoice;

generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument, wherein the payment request includes the total amount and the settlement information;

displaying the electronic invoice on the display of the mobile device for the user to verify the payment request along with the chosen paying instrument;

sending the payment request from the mobile device to a payment gateway, wherein the payment gateway sends a message directly to the POS device that a monetary transaction per the payment request sent from the mobile device has been successfully completed in the payment gateway with the POS device when an amount equivalent to the total amount is deducted from an account associated with the user; and

~~receiving~~ recording a confirmation in the mobile device that the monetary transaction per the payment request has been successfully completed with respect to the electronic invoice ~~POS device~~.

2. (*Currently amended*) The method as recited in claim 1, wherein said causing a mobile device to capture data directly from a medium includes placing the medium near the mobile device ~~the POS device includes a contactless card loaded with the electronic invoice, and said causing a mobile device to receive an electronic invoice from a point of sale (POS) device comprises reading the contactless card to obtain the electronic invoice by the mobile device~~.

3. (*Currently amended*) The method as recited in claim 2, wherein the POS device includes a secure element that provides security and authentication to generate the electronic bill and transfer the data to the medium ~~confidentiality required to support secure data communication between the POS device and the mobile device~~.

4. (*Previously amended*) The method as recited in claim 1, wherein said displaying the electronic invoice on a display of the mobile device comprises:

   allowing the user to verify the amount in the electronic invoice and make a change to the amount when needed;

   paying the total amount with the chosen paying instrument, wherein the chosen paying instrument is selected from a group consisting of an electronic wallet already created in the mobile device, a traditional credit or debit card, and an electronic transfer.

5. (*Currently amended*) The method as recited in claim 1 further comprising: causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device, wherein the installed module is executed to receive the data from the ~~POS device~~medium carrying the electronic invoice and the settlement information.

6. (*Previously amended*) The method as recited in claim 5, wherein the data further includes security information about the merchant associated with the POS device, the security information includes an account and bank information of the registered merchant, an identifier of the secure element in the contactless card or the POS device.

7. (*Currently amended*) The method as recited in claim 6, wherein said sending the payment request from the mobile device to a payment gateway comprises:

transporting the payment request over a secured channel to the payment gateway, wherein the payment gateway is configured to perform the monetary transaction per the payment request by deducting an amount from an account owned by the user and generates an electronic notification for sending to the POS device.

8. (*Previously amended*) The method as recited in claim 7, wherein said displaying the electronic invoice on the display of the mobile device comprises:

allowing the user to modify the total amount in the electronic invoice when needed;

paying the total amount with an electronic payment provided by an installed module in the mobile device, wherein the installed module in the mobile device is configured to generate the payment request including the data pertaining to the electronic invoice to the payment gateway for processing.

9. (*Currently amended*) The method as recited in claim 8, wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established therebetween ~~in accordance with the security information in the data pertaining to the electronic invoice~~.

10. (*Previously amended*) The method as recited in claim 9, wherein the mobile device includes a secure element providing security and confidentiality required to support secure data communication between the mobile device and the payment gateway.

11. (*Previously amended*) The method as recited in claim 9, wherein said notifying the user in the mobile device that then monetary transaction per the payment request has been successfully completed with the POS device comprising: sending a notification of successful payment to the merchant of the POS device.

12. (*Currently amended*) A method for mobile payment, the method comprising:
generating an electronic invoice in a point of sale (POS) device;
transporting data to a medium, wherein the data includes the electronic invoice and settlement information with a merchant associated with the POS device;
~~transporting the electronic invoice to a mobile device~~ by causing the mobile device to ~~read off~~ capture the data ~~pertaining to the electronic invoice~~ from the medium ~~POS device, wherein the data further includes settlement information with a merchant associated with the POS device~~, wherein the mobile device executes an installed application therein ~~to communicate with the POS device~~ to generate a payment request in response to the ~~electronic invoice~~captured data, the payment request being sent to a payment gateway includes a total amount combining an additional amount added by a user of the mobile device and an amount expressed in the electronic invoice; and
receiving a message in the POS device directly from the payment gateway that the electronic invoice has been settled but for the total amount more than the amount expressed in the electronic invoice, wherein the payment gateway is configured to send the message directly to the POS device when an amount equivalent to the total amount is deducted from an account associated with the user of the mobile devices.

13. (*Currently amended*) The method as recited in claim 12, wherein the medium is placed near the mobile device to allow the user to use the mobile device to capture the data ~~the POS device includes a contactless card loaded with the electronic invoice, and the mobile device reads off a contactless card in a near field of the mobile device to obtain the data pertaining to the electronic invoice from the POS device.~~

14. (*Currently amended*) The method as recited in claim 13, wherein the POS device includes a secure element providing security and authentication to generate the electronic invoice ~~and confidentiality required to support secure data communication between the POS device and the mobile device~~.

15. (*Previously amended*) The method as recited in claim 14, wherein the data includes security information of the merchant associated with the POS device, the security information includes an account and bank information, an identifier of the secure element in the contactless card or the POS device.

16. (*Previously amended*) The method as recited in claim 15, wherein the message received in the POS device shows how much has been received from the user of the mobile device.

17. (*Currently amended*) The method as recited in claim 12, wherein data exchange between the mobile device and the payment gateway is conducted in a secured channel established between the mobile device and the payment gateway ~~in accordance with the security information in the data pertaining to the electronic invoice~~.

18. (*Currently amended*) A system for mobile payment, the system comprising:

a point of sale (POS) device provided to generate an electronic invoice upon receiving an entry, wherein data including the electronic invoice and settlement information is ~~sent~~ transferred to a mediummobile device ~~when the POS device is presented near the mobile device~~, the mobile device is executing a module configured to ~~read~~ capture the data and display an amount expressed in the electronic invoice; and wherein

the POS device receives an electronic notification directly from a payment gateway that the electronic invoice has been settled for a total amount including an additional amount and the amount expressed in the electronic invoice, the

additional amount is added by the used, after the user of the mobile devices verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice, the mobile device is configured to generate a payment request to be sent to the payment gateway to proceed with a payment according to the payment request.

19. (*Previously amended*) The system as recited in claim 18, wherein the data from the POS device includes an account and bank information of the merchant of the POS device.

20. (*Previously amended*) The system as recited in claim 19, wherein the payment gateway acts to deduct an amount equivalent to the total amount from an account associated with the user of the mobile devices and generates the electronic notification for the POS device.

REMARKS

Claims 1 - 20 were examined again. In the Office Action dated 04/12/2018, Claims 1, 4, 12 and 17-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen et al. U.S. 2012/029472 (hereinafter "Mullen") in view of Shank et al. U.S. 2011/0066550 (hereinafter "Shank"), Claims 2, 5, and 13 are rejected under pre-AIA 35 U.S.C. 103{a) as being unpatentable over Mullen in view of Shank further in view of Dryer et al. US2012/0290376 (hereinafter "Dryer"), Claims 3, 6-11, 14, 15 and 16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen in view of Shank in view of Dryer further in view of Florek et al. 2011/0112968 (hereinafter "Florek").

The Applicant appreciates the Examiner for providing detailed comments in the Office Action. In the foregoing amendments, Claims 1-3, 5, 7, 9, 12-14 and 17-18 have been amended. No new matters have been introduced. Reconsideration of pending claims is respectfully requested.

Claim Rejections - 35 USC § 103

On Page 3, Section 4, of this Office Action, Claims 1, 4, 12 and 17-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen in view of Shank.

As amended, Claim 1 now recites:

causing a mobile device to capture data directly from a medium, the data including an electronic invoice and settlement information with a merchant associated with a POS device, wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium;

displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device, wherein the mobile device is configured to execute an installed application therein to capture the data from the medium;

receiving an entry by the mobile device, the entry including an additional amount from the user;

calculating a total amount by adding the additional amount to the amount in the electronic invoice;

generating a payment request in the mobile device in response to the electronic invoice after the user has chosen a paying instrument, wherein the payment request includes the total amount and the settlement information;

displaying the electronic invoice on the display of the mobile device for the user to verify the payment request along with the chosen paying instrument;

sending the payment request from the mobile device to a payment gateway, wherein the payment gateway sends a message directly to the POS device that a monetary transaction per the payment request sent from the mobile device has been successfully completed in the payment gateway with the POS device when an amount equivalent to the total amount is deducted from an account associated with the user; and

recording a confirmation in the mobile device that the monetary transaction per the payment request has been successfully completed with respect to the electronic invoice.

(*emphasis added*)

As explicitly shown in FIG. 1B, a bill (electronic invoice) is prepared in the POS device, but a customer (payer) is presented with a medium. In other words, the mobile device used by the payer captures data directly from the medium, where the data includes the bill and settlement information. As also shown in FIG. 1B, the mobile device generates a payment request and sends the request to the payment network that is authorized to process the payment request. The POS device receives a confirmation directly from the payment network that the payment has been made to the payment request originated by the mobile device.

In contrast, Mullen teaches a mobile device used as a point-of-sale terminal and a payment card as paying instrument to communicate payment information with the mobile device. An application in the mobile device is remotely activated to allow the mobile device to accept payment information directly from the payment card. In view of the instant application, the mobile device in Mullen may be viewed as the POS device 106 while the payment card is the mobile device 110. However, the mobile device in Mullen does not send an electronic invoice to the payment card but only accepts information about the payment card. Mullen is also silent about the payment card "*generating a payment request*" for the payment gateway, as there is no need to do so

in Mullen. As shown in FIG. 2, Mullen explicitly states "Mobile device 202 may, for example, complete a purchase transaction by first obtaining required payment information from contactless device 204 and then communicating such payment information to network entities (e.g., payment server 216 and/or issuer 220)". In other words, it is the mobile device 202 (corresponding to the POS device 106 in the instant application) that communicates with the payment network, teaching away from "*sending the payment request from the mobile device to a payment gateway, wherein the payment gateway sends a message directly to the POS device ...*" (note the mobile device in Mullen means the POS device). The logic data flow is very different from Claim 1 of the instant application. Further, Mullen is silent about the use of a medium presented to the payer for capturing the data including a charge that payer is supposed to pay for.

On Page 5 of the Office Action, the Examiner cites Shank to show the teaching in combination with Mullen. In Particular, the Examiner points "pg.6, ¶ [0061] discusses the gateway 14 may receive the result of the transaction from the paying bank 16a". Regardless how Shank is interpreted, the modification with Shank would not cure the deficiency presented above. Shank neither teaches nor suggests the use of a medium presented to the payer for capturing the data including a charge that payer is supposed to pay for. Accordingly, the Applicant submits the combination of Mullen and Shank fails to suggest "*a mobile device to capture data directly from a medium, the data including an electronic invoice and settlement information with a merchant associated with a POS device, wherein the POS device is used to prepare the electronic invoice and transfer the data to the medium*" and "*to capture the data from the medium*". Claim 1 shall be allowable over Mullen and Shank, viewed alone or in combination. Reconsideration of Claims 1-11 is kindly requested.

Claim 12 has been amended similarly to Claim 1. Without repeating the same, the Applicant wishes to rely upon the above arguments/reasons supporting Claim 1 to support Claim 12 and submits the combination of Mullen and Shank fails to suggest "*transporting data to medium, wherein the data includes the electronic invoice and settlement information with a merchant associated with the POS device; by causing the*

mobile device to capture the data from the medium". Accordingly, the Applicant submits Claim 12 as amended shall be allowable over Mullen and Shank, viewed alone or in combination. Reconsideration of Claims 12-17 is kindly requested.

Claim 18 has been also amended similarly to Claim 1. Without repeating the same, the Applicant wishes to rely upon the above arguments/reasons supporting Claim 1 to support Claim 18 and submits Mullen neither teaches nor suggests "*a point of sale (POS) device provided to generate an electronic invoice upon receiving an entry, wherein data including the electronic invoice and settlement information is transferred to a medium, the mobile device is executing a module configured to capture...*". Accordingly, the Applicant submits Claim 18 as amended shall be also allowable over Mullen. Reconsideration of Claims 18-20 is kindly requested.

Claim Rejections - 35 USC § 103

Claims 2, 5, and 13 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen in view of Shank further in view of Dryer, Claims 3, 6-11, 14, 15 and 16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen in view of Shank in view of Dryer further in view of Florek.

It appears that the Examiner renders the rejection based on Paragraph [0041] of Dryer. A careful review of Dryer indicates that the Examiner misinterprets "contactless card" as "NFC chips or cards 119, 129" in Dryer. As explicitly described in Paragraph [0026], a contactless card in the instant application is clearly NOT or not even close to "NFC chips or cards 119, 129" in Dryer. As shown in FIG. 1A, in one example, the contactless card 108 as a medium, is presented to a user for his mobile device 110 to capture the data from the contactless card 108. The Applicant submits the modification of Mullen and Shank with Dryer would not cure the deficiency in Mullen and Shank as expressed above. Accordingly, Claims 2, 5 and 13 as amended shall be allowable over Mullen, Shank and Dryer. Reconsideration of Claims 2, 5 and 13 in view of Claim 1 as amended is kindly requested.

Florek shows in FIG. 2 and FIG. 5 that a mobile device is used to conduct a payment with a merchant, where the mobile devices installs a payment instrument (e.g.,

in a removable memory card). However, Florek is also silent about "generating a payment request" in a mobile device for a payment gateway to settle the charge from the POS device and sending a confirmation directly to the POS device. The Applicant submits the modification of Mullen, Shank and Dryer with Florek would not cure the deficiency in Mullen as expressed above. Accordingly, Claims 3, 6-11, 14, 15 and 16 in view of Claim 1 shall be allowable over Mullen, Shank, Dryer and Florek. Reconsideration of Claims 3, 6-11, 14, 15 and 16 in view of Claim 1 as amended is kindly requested.

The patentability of the independent claims has been argued specifically as set forth above and thus Applicant will not take this opportunity to argue further the merits of the rejection with regard to each dependent claim. However, Applicant does not concede that the dependent claims are not independently patentable and reserves the right to argue the patentability of the dependent claims at a later date if necessary.

In view of the above amendments and remark, the Applicant believes that Claims 1-20 shall be in condition for allowance over the cited references. Early and favorable action is being respectfully solicited.

If there are any issues remaining which the Examiner believes could be resolved through either a Supplementary Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at (408)777-8873.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to " Mail Stop: AF/RCE Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450", Aug. 7, 2018. e-filed.

Name: Joe Zheng

Signature: / joe zheng /

Respectfully submitted;

/ joe zheng /

Joe Zheng
Reg.: No. 39,450

Electronic Patent Application Fee Transmittal

Application Number:	14728349
Filing Date:	02-Jun-2015
Title of Invention:	Method and apparatus for mobile payments
First Named Inventor/Applicant Name:	Xiangzhen Xie
Filer:	Joe Zheng
Attorney Docket Number:	RFID-085C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
RCE- 1ST REQUEST	2801	1	650	650
		Total in USD ($)		**750**

Electronic Acknowledgement Receipt

EFS ID:	33404153
Application Number:	14728349
International Application Number:	
Confirmation Number:	5346
Title of Invention:	Method and apparatus for mobile payments
First Named Inventor/Applicant Name:	Xiangzhen Xie
Customer Number:	26797
Filer:	Joe Zheng
Filer Authorized By:	
Attorney Docket Number:	RFID-085C1
Receipt Date:	07-AUG-2018
Filing Date:	02-JUN-2015
Time Stamp:	22:47:52
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$750
RAM confirmation Number	080818INTEFSW22494100
Deposit Account	502436
Authorized User	Joe Zheng

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	RCEReqTrnsAsFiled.pdf	127914 [illegible]	no	1
Warnings:					
This is not a USPTO supplied RCE SB30 form.					
Information:					
2	Amendment Submitted/Entered with Filing of CPA/RCE	ResponseToFinalOA.pdf	162105 [illegible]	no	12
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32149 [illegible]	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	322168		

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.

<u>New Applications Under 35 U.S.C. 111</u>
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.

<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.

<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 14/728,349	Filing Date 06/02/2015	☐ To be Mailed

ENTITY: ☐ LARGE ☑ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $40 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $210 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

AMENDMENT	08/07/2018	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $50 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0		x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	diana A bates
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/728,349	06/02/2015	Xiangzhen Xie	RFID-085C1	5346

26797 7590 04/12/2018

LogicPatents, LLC
21701 Stevens Creek Boulevard, #284
CUPERTINO, CALIFORNIA 95015
UNITED STATES OF AMERICA

EXAMINER
HAYLES, ASHFORD S

ART UNIT	PAPER NUMBER
3687	

NOTIFICATION DATE	DELIVERY MODE
04/12/2018	ELECTRONIC

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

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

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

uspatents@sbcglobal.net

Office Action Summary	Application No. 14/728,349	Applicant(s) Xie et al.	
	Examiner ASHFORD S HAYLES	Art Unit 3687	AIA Status No

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

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 1/16/2018.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ 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.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, 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.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 6/23/2018 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ 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)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Amendment received on January 16, 2018 has been acknowledged. Claims 1, 3-8, 10-12, 14-16 and 18-20 have been amended and entered. Therefore, claims 1-20 are pending.

Response to Arguments

Applicant's arguments with respect to claims 1-20 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented 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. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 4, 12 and 17-20 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen et al. U.S. 2012/029472 in view of Shank et al. U.S. 2011/0066550.

As per Claim 1, Mullen et al. discloses a method for mobile payment, the method comprising:

causing a mobile device to receive an electronic invoice from a point of sale (POS) device (pg.13, ¶ [0155] discusses a merchant may send a message (e.g., an email or text message) to the user-supplied address that may contain a link to the user's bill),

wherein the mobile device is a near-field communication device and configured to execute an installed application therein to communicate with the POS device to generate a payment request in response to the electronic invoice (pg.13, ¶ [0158] discusses a payment application installed on mobile device, pg.5, ¶ [0074] discusses Mobile device 202 may, for example, complete a purchase transaction by first obtaining required payment information from contactless device 204 and then communicating such payment information to network entities e.g., payment server 216 and/or issuer 220);

displaying the electronic invoice on a display screen of the mobile device for a user to verify the payment request (pg.13, ¶ [0155] discusses a user's meal tab at a restaurant may be itemized by GUI 2508 and an alphanumeric entry box (e.g., box 2510) may allow the user to enter additional data (e.g.,

add a tip to the bill). A user may, for example, review a total to be charged, verify such a total, and then present payment card 2504 to mobile device 2502 to settle the total amount);

receiving an entry by the mobile device the entry including an additional amount from the user (pg.13, ¶ [0154] discusses a user may monitor each item on the bill, enter an additional amount into the bill e.g., a tip);

calculating a total amount by adding the additional amount to the amount in the electronic invoice (pg.13, ¶ [0154] discusses and then pay the bill all from the convenience of the user's mobile device 2502[1]);

processing the payment request in the mobile device (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement); and

notifying the user in the mobile device that a monetary transaction per the payment request has been successfully completed with the POS device (pg.9, ¶ [0116] discusses a mobile device may complete a purchase transaction with an entity of a payment network (e.g., a payment server) and may further request that the payment server deliver a receipt to the mobile device in a text message format).

Shank teaches causing a mobile device to receive data wirelessly from a point of sale device (POS) (pg.4, ¶ [0047] discusses once the bill is complete, the biller may instruct the device 12b to send the bill by pressing a send button pg.5, ¶ [0050] discusses the billing device 12b may establish a dedicated peer-to-peer connection with the paying device 12a),

the data including an electronic invoice and settlement information with a merchant associated with the POS device (pg.5, ¶ [0051] discusses the billing device 12b may send a list of one or more active

[1] The Examiner is construing the ability to pay the final bill as calculating a total amount including the additional amount, because it is old and well known to include the tip when making a purchase at a restaurant as described within the cited portion of Mullen.

bills 88 to the paying device, pg.4, ¶ [0047] discusses the details may provide an itemized record describing the goods and/or services provided, the taxes charged, and any other suitable details. The biller may then select an account for receiving the funds);

displaying the electronic invoice on a display of the mobile device to show an amount to be paid by a user of the mobile device (Figure 4F, Bill 88 depicts the amount to be paid on the payer device),

generating a payment request in response to the electronic invoice after the user has chosen a paying instrument (pg.5, ¶ [0051] discusses once the bill 88 has been selected the payer selects an account for making the payment, ¶ [0052] discusses upon receiving the accept bill message, the billing device 12b may send "Pay To" information to the paying device 12a, as shown in step 216. The Pay To information may include the device identifier of the billing device, the location of the billing device, a bill number, the bill title, the payment amount, the bill details, and/or one or more authorization codes),

wherein the payment request includes the total amount and the settlement information (pg.5, ¶ [0054] discusses the paying device 12a may include only certain parameters of the Pay To information, such as the device identifier of the billing device, the location of the billing device, the bill title, the payment amount, and the authorization codes);

sending the payment request from the mobile device to a payment gateway ¶ [0054] discusses the paying device 12a may send a transaction to the gateway 14 at step 222. The transaction may include the Pay To information and "Bill To" information describing the paying device 12a), wherein the payment gateway, sends a message to the POS device that a monetary transaction per the payment request has been successfully completed with the POS device when an amount equivalent to the total amount is deducted from an account associated with the user (pg.6, ¶ [0061] discusses the gateway 14 may receive the result of the transaction from the paying bank 16a. The result may indicate whether the transaction succeeded, a transaction number, and/or an estimated date that the transferred funds will become available to the biller, pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a

of the result at step 230 and may notify the billing device 16b of the result at step 232. Sending the result to the billing device 16b from the gateway 14, rather than from the paying device 16a, may reduce the risk of fraud).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 4, Mullen et al. discloses the method as recited in claim 1, wherein said displaying the electronic invoice on a display of the mobile device comprises:

allowing the user to verify the amount in the electronic invoice and make a change to the amount when needed (pg.13, ¶ [0155] discusses a user's meal tab at a restaurant may be itemized by GUI 2508 and an alphanumeric entry box (e.g., box 2510) may allow the user to enter additional data, e.g. add a tip to the bill).;

paying the total amount with the chosen paying instrument, wherein the chosen paying instrument is selected from a group consisting of an electronic wallet already created in the mobile device, a traditional credit or debit card, and an electronic transfer (pg.6, ¶ [0086] discusses GUI 500 may be generated to allow a user an opportunity to select which payment option (e.g., credit option 502) from a number of payment options is to be used to settle a payment transaction, pg.9, ¶ [0111] discusses a user may elect to charge $10 against a VISA credit account, $35 against a MIC debit account, and 500 rewards points earned by the VISA credit account towards full payment of a $50 amount owing for a particular selected purchase).

As per Claim 12, Mullen et al. discloses a method for mobile payment, the method comprising:

generating an electronic invoice in a point of sale (POS) device (pg.13, ¶ [0154] discusses Mobile device 2502 may interact with a merchant establishment (e.g., a restaurant) to gain entry into a user's tab at the merchant's establishment (e.g., a food and alcohol bill generated by the restaurant);

transporting the electronic invoice to a mobile device by causing the mobile device to read off data pertaining to the electronic invoice from the POS device (pg.13, ¶ [0155] discusses a merchant may send a message (e.g., an email or text message) to the user-supplied address that may contain a link to the user's bill),

the payment request includes a total amount combining an additional amount added by a user of the mobile device and an amount expressed on the bill (pg.13, ¶ [0154] discusses Mobile device 2502 may interact with a merchant establishment (e.g., a restaurant) to gain entry into a user's tab at the merchant's establishment (e.g., a food and alcohol bill generated by the restaurant) a user may monitor each item on the bill, enter an additional amount into the bill e.g., a tip and then pay the bill all from the convenience of the user's mobile device 2502[2]),

wherein the mobile device is a near-field communication device and configured to execute an installed application therein to communicate with the POS device to generate a payment request in response to the electronic invoice (pg.13, ¶ [0158] discusses a payment application installed on mobile device, pg.5, ¶ [0074] discusses Mobile device 202 may, for example, complete a purchase transaction by first obtaining required payment information from contactless device 204 and then communicating such payment information to network entities e.g., payment server 216 and/or issuer 220);

receiving a notification from a payment gateway that the electronic invoice has been settled (pg.9, ¶ [0116] discusses a mobile device may also provide a text message address (e.g., an SMS text

[2] The Examiner is construing the food and alcohol as an amount expressed on the bill and the tip as the additional amount.

message address) to the payment server. In so doing, for example, the mobile device may receive a receipt of the completed purchase transaction from the payment server via a text message at the text message address provided by the mobile device),

wherein a user of the mobile devices verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice (pg.13, ¶ [0154] discusses a user may monitor each item on the bill, enter an additional amount into the bill (e.g., a tip), and then pay the bill all from the convenience of the user's mobile device 2502).

Mullen et al. teaches a total amount more than the amount expressed in the electronic invoice, by stating that the user can add a tip to the food and alcohol bill as stated above.

Shank teaches wherein the data further includes settlement information with a merchant associated with the POS device (pg.5, ¶ [0051] discusses the billing device 12b may send a list of one or more active bills 88 to the paying device, pg.4, ¶ [0047] discusses the details may provide an itemized record describing the goods and/or services provided, the taxes charged, and any other suitable details. The biller may then select an account for receiving the funds);

receiving a message in the POS device from the payment gateway that the electronic invoice has been settled (pg.6, ¶ [0061] discusses the gateway 14 may receive the result of the transaction from the paying bank 16a. The result may indicate whether the transaction succeeded, a transaction number, and/or an estimated date that the transferred funds will become available to the biller ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232.).

the payment request being sent to a payment gateway includes a total amount expressed on the electronic invoice (pg.5, ¶ [0054] discusses the paying device 12a may include only certain parameters of the Pay To information, such as the device identifier of the billing device, the location of the billing device, the bill title, the payment amount, and the authorization codes, ¶ [0054] discusses the

paying device 12a may send a transaction to the gateway 14 at step 222. The transaction may include the Pay To information and "Bill To" information describing the paying device 12a),

wherein the payment gateway, is configured to send the message directly to the POS device when an amount equivalent to the total amount is deducted from an account associated with the user of the mobile devices (pg.6, ¶ [0062] Sending the result to the billing device 16b from the gateway 14, rather than from the paying device 16a, may reduce the risk of fraud).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 17, Mullen et al. discloses the method as recited in claim 12, wherein data exchange between the mobile device and the payment gateway (pg.10, ¶ [0128] discusses a mobile device may communicate payment information to a payment server to complete a purchase transaction)

Mullen discloses the claimed invention except for a secure channel.

Shank et al. teaches a secure channel (pg.5, ¶ [0053] discusses each device 12 may open a connection with the gateway 14. The connections may be opened according to any suitable network communications protocol. The connections may be secured by any suitable security protocol, such as Secure Socket Layer (SSL)).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a secure

connection between mobile devices and a payment gateway to complete a payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 18, Mullen et al. discloses a system for mobile payment, the system comprising:

after a user of the mobile devices verifies the electronic invoice displayed on the mobile device and authorizes a payment to the electronic invoice (pg.13, ¶ [0158] discusses a payment application installed on mobile device, pg.5, ¶ [0074] discusses Mobile device 202 may, for example, complete a purchase transaction by first obtaining required payment information from contactless device 204 and then communicating such payment information to network entities e.g., payment server 216 and/or issuer 220);

the mobile device is configured to establish a communication session with the payment gateway to proceed with the payment to the electronic invoice (pg.9, ¶ [0116] discusses a mobile device may complete a purchase transaction with an entity of a payment network (e.g., a payment server).

Mullen discloses the claimed invention except for a secure channel. It would have been obvious to one having ordinary skill in the arty at the time the invention was made to send data to a payment gateway using a secure channel since it was known in the art that payment gateways such as VISA and MasterCard require SET protocols to communicate data when conducting transactions over the Internet[3].

Mullen further discloses including an additional amount and the amount expressed in the electronic invoice, the additional amount is added by the user (pg.13, ¶ [0154] discusses mobile device

[3] *Partnering for Performance with MasterCard e-Business Solutions, pg.8,* MasterCard International Incorporated 2001.

2502 may interact with a merchant establishment (e.g., a restaurant) to gain entry into a user's tab at the merchant's establishment (e.g., a food and alcohol bill generated by the restaurant)a user may monitor each item on the bill, enter an additional amount into the bill e.g., a tip), and then pay the bill all from the convenience of the user's mobile device).

Shank teaches a point of sale (POS) device provided to generate an electronic invoice upon receiving an entry (pg.4, ¶ [0047] discusses the user of the billing device (i.e., the biller) may create a bill at step 204. For example, the biller may access a billing menu 84 of the application as shown in FIG. 4B. The billing menu 84 may allow the biller to create a new bill by pressing an add bill button);

wherein data including the electronic invoice is sent to a mobile device when the POS device is presented near the mobile device (pg.4, ¶ [0048] discusses the billing device may broadcast a device identifier. In some embodiments, the device identifier may be broadcast locally over a short-range wireless communication protocol, such as a BLUETOOTH protocol, ¶ [0050] discusses Upon receiving the accept message containing the connection instructions and its own device identifier, the billing device 12b may establish a dedicated peer-to-peer connection with the paying device 12a at step 210. The dedicated connection may be established according to the short-range wireless communication protocol being used ¶ [0051] discusses the billing device may send a list of one or more active bills to the paying device),

the mobile device is executing a module configured to read the data and display an amount expressed in the electronic invoice (pg.3, ¶ [0035] discusses Peer-to-Peer Payment application, See Figures 5A-5B);

the POS device receives an electronic notification from a payment gateway that the electronic invoice has been settled for a total amount (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 19, Mullen et al. discloses the claimed invention. However, Mullen et al. is silent regarding wherein the data from the POS device includes an account and bank information of the merchant of the POS device.

Shank teaches wherein the data from the POS device includes an account and bank information of the merchant of the POS device (pg.5, ¶ [0052] discusses The Pay To information may include the device identifier of the billing device, the location of the billing device, a bill number, the bill title, the payment amount, the bill details, and/or one or more authorization codes. In some embodiments, the authorization codes may include a biller authorization code representing a user name of the biller and a biller account code representing the account to which the funds are to be transferred)

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide merchant account and bank information for completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 20, Mullen discloses the claimed invention. However, Mullen is silent regarding wherein the payment gateway acts to deduct an amount equivalent to the total amount from an account associated with the user of the mobile devices and generates the electronic notification for the POS device.

Shank teaches the payment gateway acts to deduct an amount equivalent to the total amount from an account associated with the user of the mobile devices (pg.5, ¶ [0058] discusses the gateway 14 may instruct the payer's account manager 16a (e.g., the paying bank) to withdraw the payment amount from the paying account and to deposit the payment amount into the billing account and generates the electronic notification for the POS device (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232. Sending the result to the billing device 16b from the gateway).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a payment gateway to deduct payment from a customer account to a merchant account as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

2. Claims 2, 5, and 13 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen et al. US 2012/0290472 in view of Shank US 2011/0066550 further in view of Dryer et al. US2012/0290376.

As per Claim 2, Mullen et al. discloses the method as recited in claim 1. However, Mullen et al. is silent regarding wherein the POS device includes a contactless card loaded with the electronic invoice, and said causing a mobile device to receive an electronic invoice from a point of sale (POS) device comprises reading the contactless card to obtain the electronic invoice by the mobile device.

Dryer et al. teaches wherein the POS device includes a contactless card loaded with the electronic invoice, and said causing a mobile device to receive an electronic invoice from a point of sale (POS) device comprises reading the contactless card to obtain the electronic invoice by the mobile device (pg.5, ¶ [0041] discusses electronic payment device 120 are equipped with respective NFC chips or cards 119, 129, which are utilized to establish a NFC connection with each other when they are brought together or sufficiently close to each other, ¶ [0045] discusses the merchant generating invoice, receipt or transaction data using electronic payment device for purchase of item by the consumer from the merchant).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant POS with a NFC transaction card as taught by Dryer et al. to provide a system and method where Authorization data is shared between the mobile communication device and the electronic payment device without providing electronic payment instrument (e.g. credit card) data to the merchant (Abstract).

As per Claim 5, Mullen et al. discloses the method as recited in claim 1. Shank discloses the billing device may broadcast a device identifier. In some embodiments, the device identifier may be broadcast locally over a short-range wireless communication protocol, such as a BLUETOOTH protocol.

However, Mullen et al. and Shank are silent regarding a causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device, wherein the installed module executed to receive the data from the POS device.

Dryer et al. teaches a causing the mobile device to execute an installed module upon detecting the POS device in a near field of the mobile device (pg.6, ¶ [0047] discusses the consumer's mobile communication device 110 and the merchant's electronic payment device 120 brought into contact or in proximity with each other to establish a temporary connection, e.g., a NFC connection 160, between the devices so they can communicate with each other,

wherein the installed module executed to receive the data from the POS device, (pg.5 ¶ [0054] discusses the payment application 123 executing on the electronic payment device 120 or the mobile wallet application 113 executing on the mobile communication device 110 transforms or encodes the merchant-generated authorization token. The encoded authorization token 170 may embody or be encoded with transaction data 122, and may be decoded by the cloud wallet server 140 using an appropriate key or decoding mechanism. The ability to encode and decode the authorization data provides for more flexibility and inclusion of additional information associated with the merchant 125 and/ or transaction to ensure that the credit card data 147 to be utilized is utilized for payment is for the correct amount, e.g., if the invoice or receipt amount 122 is encoded within or transmitted with the authorization token 170, and that the payment request is for a particular merchant 125 for that specified amount).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to receive transaction data from a merchant in order to process a mobile payment as taught by Dryer et al. to provide a system and method where authorization data is shared between the mobile communication device and the

electronic payment device without providing electronic payment instrument (e.g. credit card) data to the merchant (Abstract).

As per Claim 13, Mullen et al. discloses the method as recited in claim 12. However, Mullen et al. is silent regarding wherein the POS device includes a contactless card loaded with the electronic invoice, and the mobile device reads off a contactless card in a near field of the mobile device to obtain the data pertaining to the electronic invoice from the POS device.

Dryer et al. teaches wherein the POS device includes a contactless card loaded with the electronic invoice (pg.5, ¶ [0041] discusses electronic payment device 120 are equipped with respective NFC chips or cards 119, 129, ¶ [0046] discusses the payment application 123 executing on the electronic payment device 120 generates an authorization token 170[4]), and

the mobile device reads off a contactless card in a near field of the mobile device to obtain the data pertaining to the electronic invoice from the POS device (pg.6, ¶ [0047] discusses the consumer's mobile communication device 110 and the merchant's electronic payment device 120 brought into contact or in proximity with each other to establish a temporary connection, e.g., a NFC connection 160, between the devices so they can communicate with each other).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant POS with a NFC transaction card as taught by Dryer et al. to provide a system and method where Authorization data is shared between the mobile communication device and the electronic payment device without providing electronic payment instrument (e.g. credit card) data to the merchant (Abstract).

[4] Examiner is construing authorization token as an electronic invoice because the token includes invoice amount and transaction data.

3. Claims 3, 6-11, 14, 15 and 16 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Mullen et al. US 2012/0290472 in view of Shank et al. US2011/0066550 in view of Dryer et al. US2012/0290376 further in view of Florek et al. 2011/0112968.

As per Claims 3 and 14, Shank teaches where the billing device 12b may establish a dedicated peer-to-peer connection with the paying device 12a at step 210. The dedicated connection may be established according to the short-range wireless communication protocol being used (pg.5, ¶ [0050]). However, Mullen et al., Dryer et al. and Shank are silent regarding wherein the POS device includes a secure element that provides security and confidentiality required to support secure data communication between the POS device and the mobile device.

Florek et al. teaches wherein the POS device includes a secure element that provides security and confidentiality required to support secure data communication between the POS device the mobile device (pg.10, ¶ [0089] discusses In its hardware on the SAM card 42 the Sales Device 28 encompasses a Secure Element 6 into which the POS payment terminal 27 identification and also the Master Key for the encryption of the communicated data is loaded).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen, Shank and Dryer et al., to include the ability to provide a merchant sales device with a secure element to conduct mobile transactions as taught by Florek et al. to provide a method of direct debit payment using a contactless transmission link and describes a configuration, in which a temporary payment terminal, with simplified structure that is intended above all for small business premises, can be created using a mobile communication device. The solution refers to increase in security and comfort in paying over the mobile communication device with removable memory card for example in the form of a micro SD card (pg.1, ¶ [0001]).

As per Claims 6 and 15, Mullen et al. discloses the claimed invention. However, Mullen et al. is silent regarding wherein the data further includes security information about the merchant associated

with the POS device, the security information includes an account and bank information of the registered merchant, an identifier of the secure element in the contactless card or the POS device.

Dryer et al. teaches wherein the data further includes security information about the merchant associated with the POS device, the security information includes an account and bank information of the registered merchant, an identifier of the secure element in the contactless card or the POS device (pg.5, ¶ [0046] discusses includes or is encoded with transaction data 122 such as merchant identification (Merchant ID) types of electronic payment accepted by the merchant (e.g. VISA, MASTERCARD, etc.).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide merchant identification and payment type information as taught by Dryer et al. to provide a system and method where authorization data is shared between the mobile communication device and the electronic payment device without providing electronic payment instrument (e.g. credit card) data to the merchant (Abstract).

However, Mullen et al. and Dryer et al. are silent regarding an identifier of the secure element in the contactless card or the POS device.

Florek et al. teaches an identifier of the secure element in the contactless card or the POS device (pg.10, ¶ [0089] discusses in its hardware on the SAM card 42 the Sales Device 28 encompasses a Secure Element 6 into which the POS payment terminal 27 identification and also the Master Key for the encryption of the communicated data is loaded).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen and Dryer et al., to include the ability to provide information identifying a merchant sales device with a secure element within a mobile transactions as taught by Florek et al. to provide a method of direct debit payment using a contactless

transmission link and describes a configuration, in which a temporary payment terminal, with simplified structure that is intended above all for small business premises, can be created using a mobile communication device. The solution refers to increase in security and comfort in paying over the mobile communication device with removable memory card for example in the form of a micro SD card (pg.1, ¶ [0001]).

As per Claim 7, Mullen et al. discloses the method as recited in claim 6, wherein said sending the payment request from the mobile device to a payment gateway comprises

transporting the payment request to the payment gateway (pg.13, ¶ [0149] discusses mobile device 2302 may customize a payment message to remote application 2308 that includes only the filtered subset of data that is needed by remote application 2308 to complete the purchase transaction),

wherein the payment gateway is configured to perform the monetary transaction per the payment request by deducting an amount from an account owned by the user (pg.11, ¶ [0137] discusses enable a funds transfer from a source account (e.g., an account associated with a payment card that is tapped against a display of a mobile device) to a target account (e.g., a car loan account). Portion 2002 may, for example, list account details that may be associated with a target account (e.g., an account number associated with a car loan, the payoff amount, and the amount due). Portion 2002 may, for example, include details that may be associated with a target account that a mobile device has collected from a network entity (e.g., a bank) via a network connection between the mobile device and the network entity).

However, Mullen et al. fails to explicitly state a secure channel and is silent regarding generating an electronic notification for sending to the POS device.

Shank et al. teaches a secure channel (pg.5, ¶ [0053] discusses each device 12 may open a connection with the gateway 14. The connections may be opened according to any suitable network

communications protocol. The connections may be secured by any suitable security protocol, such as Secure Socket Layer (SSL)).

Shank further teaches generating an electronic notification for sending to the POS device (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step 230 and may notify the billing device 16b of the result at step 232. Sending the result to the billing device 16b from the gateway 14, rather than from the paying device, may reduce the risk of fraud).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a security protocol and provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 8, Mullen et al. discloses the method as recited in claim 7, wherein said displaying the electronic invoice on the display of the mobile device comprises:

allowing the user to modify the total amount in the electronic invoice when needed (pg.13, ¶ [0155] discusses a user's meal tab at a restaurant may be itemized by GUI 2508 and an alphanumeric entry box (e.g., box 2510) may allow the user to enter additional data (e.g., add a tip to the bill). A user may, for example, review a total to be charged, verify such a total, and then present payment card 2504 to mobile device 2502 to settle the total amount[5]);

paying the total amount with an electronic payment provided by an installed module in the mobile device (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated

[5] Examiner is construing the ability to enter an additional amount as modifying the total.

with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement),

wherein the installed module in the mobile device is configured to generate the payment request including the data pertaining to the electronic invoice to the payment gateway for processing (pg.9, ¶ [0114] discusses Payment information used to settle a transaction associated with the selected food purchase may be collected and/or generated by the mobile device and forwarded onto a payment server and/or an associated issuer for settlement).

As per Claim 9, Mullen et al. discloses the method as recited in claim 8, wherein data exchange between the mobile device and the payment gateway (pg.10, ¶ [0128] discusses a mobile device may communicate payment information to a payment server to complete a purchase transaction)

Mullen discloses the claimed invention however fails to explicitly state a secure channel. Shank et al. teaches a secure channel (pg.5, ¶ [0053] discusses each device 12 may open a connection with the gateway 14. The connections may be opened according to any suitable network communications protocol. The connections may be secured by any suitable security protocol, such as Secure Socket Layer (SSL)).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a secure connection between mobile devices and a payment gateway to complete a payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 10 , Mullen et al. and Dryer et al. discloses the method of the claimed invention. However, Mullen et al. and Dryer et al. are silent regarding wherein the mobile device includes a secure

element providing security and confidentiality required to support secure data communication between the mobile device and the payment gateway.

Florek et al. teaches wherein the mobile device includes a secure element that provides security and confidentiality required to support secure data communication between the mobile device and the payment gateway (Figure 6, depicts Micros 18 for insertion into customer mobile phone having Secure Element 31).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen and Dryer et al., to include the ability to provide a customer mobile phone with a secure element to conduct mobile transactions as taught by Florek et al. to provide a method of direct debit payment using a contactless transmission link and describes a configuration, in which a temporary payment terminal, with simplified structure that is intended above all for small business premises, can be created using a mobile communication device. The solution refers to increase in security and comfort in paying over the mobile communication device with removable memory card for example in the form of a micro SD card (pg.1, ¶ [0001]).

As per Claim 11, Mullen et al. discloses the method of the claimed invention, wherein said notifying the user in the mobile device that a monetary transaction per the payment request has been successfully completed with the POS device (pg.9, ¶ [0116] discusses a mobile device may complete a purchase transaction with an entity of a payment network (e.g., a payment server) and may further request that the payment server deliver a receipt to the mobile device in a text message format).

However, Mullen et al. is silent regarding sending a notification of successful payment to the merchant of the POS device.

Shank et al. teaches sending a notification of successful payment to the merchant of the POS device (pg.6, ¶ [0062] discusses the gateway 14 may notify the paying device 16a of the result at step

230 and may notify the billing device 16b of the result at step 232. Sending the result to the billing device 16b from the gateway).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a notification to a merchant regarding the completion of a payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

As per Claim 16, Mullen et al. discloses the method of the claimed invention. However, Mullen et al. is silent regarding wherein the message received in the POS device shows how much has been received from the user of the mobile device.

Shank teaches wherein the message received in the POS device shows how much has been received from the user of the mobile device (pg.6, ¶ [0062] discusses the result may be communicated to the user via email, text message, or any suitable type of notification. An example of a result 94 received by the billing device 12b is illustrated in FIG. 4F).

Therefore it would have been obvious to one of ordinary skill in the art of mobile commerce at the time of the invention to modify the system of Mullen to include the ability to provide a merchant with notification regarding the completion of payment transaction as taught by Shank et al. to provide a system and method where a gateway uses an authorization code to authorize a transaction and to determine an account for each device. The gateway then instructs an account manager to withdraw the payment amount from the account of the first device and to deposit it into the account of the second device (Abstract).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHFORD S HAYLES whose telephone number is (571)270-5106. The examiner can normally be reached on M-F 6AM-4PM with Flex.

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, Fahd Obeid can be reached on 5712703324. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ASHFORD S HAYLES/
Primary Examiner, Art Unit 3687

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20120317628-A1	12-2012	Yeager; C. Douglas	G06Q20/204	726/5
*	B	US-20100213253-A1	08-2010	Wollbrand; Karin	G06K19/07769	235/380
*	C	US-20130334318-A1	12-2013	Wakerly; Michael John	G06Q20/352	235/492
*	D	US-20120166333-A1	06-2012	von Behren; Rob	G06Q20/10	705/41
*	E	US-8646059-B1	02-2014	von Behren; Rob	G06Q20/367	719/311
*	F	US-8196131-B1	06-2012	von Behren; Rob	G06Q20/367	705/64
*	G	US-20130151292-A1	06-2013	Van Deloo; Lori	G06Q10/02	705/5
*	H	US-20140013406-A1	01-2014	Tremlet; Christophe	G06F21/32	726/5
*	I	US-20100306076-A1	12-2010	Taveau; Sebastien	G06Q20/02	705/26.8
*	J	US-20130200999-A1	08-2013	Spodak; Douglas A.	G05B1/01	340/5.65
*	K	US-20130097080-A1	04-2013	Smets; Patrik	H04N19/85	705/44
*	L	US-20100114773-A1	05-2010	Skowronek; Daniel P.	G06Q20/40	705/44
*	M	US-20130152185-A1	06-2013	Singh; Ravi	G06F21/35	726/9

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*	A	US-20110066550-A1	03-2011	Shank; Clinton L.	G06Q20/1085	705/43
*	B	US-20130097031-A1	04-2013	Royyuru; Vijay Kumar	G06Q20/20	705/16
*	C	US-20130254102-A1	09-2013	Royyuru; Vijay Kumar	G06Q20/382	705/39
*	D	US-7962369-B2	06-2011	Rosenberg; Einar	G06Q20/20	705/26.1
*	E	US-20130060699-A1	03-2013	Romagnoli; Amy Sobocinski	G06Q20/10	705/44
*	F	US-20120136786-A1	05-2012	Romagnoli; Amy Sobocinski	G06Q20/10	705/44
*	G	US-20110117839-A1	05-2011	Rhelimi; Alain	G06K19/0719	455/41.1
*	H	US-20110078081-A1	03-2011	Pirzadeh; Kiushan	G06Q20/20	705/44
*	I	US-20130138959-A1	05-2013	PELLY; Nicholas Julian	H04L9/083	713/168
*	J	US-20120118952-A1	05-2012	Norair; John Peter	G06K7/0008	235/380
*	K	US-20110180610-A1	07-2011	Narendra; Siva G.	G06K19/0701	235/492
*	L	US-20120178433-A1	07-2012	Narendra; Siva G.	G06K19/06187	455/420
*	M	US-20080093467-A1	04-2008	Narendra; Siva G.	G06Q20/341	235/492

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*	A	US-20130218766-A1	08-2013	Mueller; Michael	G06Q20/32	705/42
*	B	US-20130346305-A1	12-2013	Mendes; Rui	G06Q20/351	705/41
*	C	US-20110155800-A1	06-2011	Mastrangelo; Edward L.F.	G06Q20/352	235/379
*	D	US-20110042456-A1	02-2011	Masaryk; Michal	G06Q20/20	235/380
*	E	US-20130198086-A1	08-2013	Mardikar; Upendra	G06Q20/1085	705/71
*	F	US-20090307140-A1	12-2009	Mardikar; Upendra	G06Q20/1085	705/71
*	G	US-20130160134-A1	06-2013	MARCOVECCHIO; Vincenzo Kazimierz	G06Q20/3563	726/26
*	H	US-20130151400-A1	06-2013	Makhotin; Oleg	G06Q20/3227	705/39
*	I	US-20130132219-A1	05-2013	Liberty; Michael A.	G06Q20/202	705/21
*	J	US-20130226812-A1	08-2013	Landrok; Mads	G06Q20/32	705/67
*	K	US-20130221092-A1	08-2013	Kushevsky; Mikhail	G06Q20/3672	235/379
*	L	US-20140012751-A1	01-2014	Kuhn; Stephen	G06Q20/36	705/41
*	M	US-20130173736-A1	07-2013	KRZEMINSKI; Marek	H04W12/10	709/213

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*	B	US-20130138517-A1	05-2013	Khan; Sameer Mohamed	G06Q30/00	705/16
*	C	US-20130124349-A1	05-2013	Khan; Mohammad	G06Q20/36	705/21
*	D	US-20110251952-A1	10-2011	Kelly; Mary L.	G06Q20/102	705/40
*	E	US-20130024383-A1	01-2013	Kannappan; Sasikumar	G06Q20/40	705/71
*	F	US-8341083-B1	12-2012	Jain; Deepak	G06K19/07739	705/41
*	G	US-20120072309-A1	03-2012	Hultberg; Stefan	G06Q20/32	705/26.41
*	H	US-20120143702-A1	06-2012	Ho; Yu-Ping	G06Q20/10	705/16
*	I	US-20070131780-A1	06-2007	Ho; Chun-Hsin	G06K19/07	235/492
*	J	US-20130140360-A1	06-2013	GRAYLIN; WILL W.	G06Q20/322	235/380
*	K	US-8565676-B2	10-2013	Gormley; Georgiana	H04M1/274516	455/41.1
*	L	US-20040127256-A1	07-2004	Goldthwaite, Scott	G06K7/0004	455/558
*	M	US-20110112968-A1	05-2011	FLOREK; Miroslav	G06Q20/20	705/50

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*	B	US-20100274677-A1	10-2010	Florek; Miroslav	G06Q20/10	705/16
*	C	US-20130203345-A1	08-2013	Fisher; Michelle	H04B11/00	455/41.1
*	D	US-20120239566-A1	09-2012	Everett; David	G06Q20/10	705/41
*	E	US-20120290376-A1	11-2012	Dryer; Trevor D.	G06Q20/3278	705/14.23
*	F	US-20130246258-A1	09-2013	Dessert; Robert	G06Q20/40	705/41
*	G	US-20140095382-A1	04-2014	Desai; Mehul	G06Q20/322	705/41
*	H	US-20080126260-A1	05-2008	Cox; Mark A.	G06Q20/20	705/67
*	I	US-20110113473-A1	05-2011	Corda; Alexandre	G06Q20/32	726/3
*	J	US-8577731-B1	11-2013	Cope; Warren B.	G06Q20/3224	705/17
*	K	US-20130103574-A1	04-2013	Conrad; Abbe Elizabeth	G06Q20/36	705/39
*	L	US-20120304255-A1	11-2012	Carnes; Daniel Wilson	H04L9/3234	726/3
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*	B	US-20090164330-A1	06-2009	Bishop; Fred A.	G06Q20/02	705/19
*	C	US-20110087610-A1	04-2011	Batada; Asif	G06F21/72	705/318
*	D	US-20130060618-A1	03-2013	Barton; Loren	G06Q20/3223	705/14.23
*	E	US-20130144731-A1	06-2013	Baldwin; Christopher F.	G06Q20/20	705/17
*	F	US-20120078792-A1	03-2012	Bacastow; Steven V.	G06Q20/3223	705/44
*	G	US-20130171929-A1	07-2013	ADAMS; NEIL PATRICK	H04W4/80	455/41.1
*	H	US-8601266-B2	12-2013	Aabye; Christian	G06F21/445	380/279
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	Examiner	Art Unit
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CPC - Searched*		
Symbol	Date	Examiner

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
705	21	09/21/2017	ASH

* 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
EAST (SEE ATTACHMENTS)	09/21/2017	ASH
UPDATED EAST (SEE ATTACHMENTS)	04/06/2018	ASH
COMMON CITATION (http://ccd.fiveipoffices.org) (SEE ATTACHMENTS)	04/06/2018	ASH

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

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✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
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CLAIMS

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

CLAIM		DATE								
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	20	✓	✓							

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	758	(electronic near (purse or wallet)) and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:44
S2	138	S1 and emulat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S3	137	S2 and (app or application or applet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S4	86	S3 and PIN	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S5	43	S4 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/13 06:45
S6	3	(("20130124351") or ("20080011833") or ("20130132219")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/04/22 17:49
S7	156	(mobile or portable or wireless) near (POS) and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 16:54
S8	34	(mobile or portable or wireless) near (POS) with NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/04/23 16:54

			DERWENT; IBM_TDB			
S9	0	(smartcard) near (POS) with NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:00
S10	2	(smartcard) near (POS) and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:00
S11	0	(smartcard) near ("transaction terminal") and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:05
S12	76	(smartcard) near NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:05
S13	40	S12 and POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:06
S14	98	("smart card" or "chip card" or EMV) near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:11
S15	38	(contactless) near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/23 17:17
S16	217	(contactless) near (POS or payment or transaction) and (electronic or digital) near (receipt or bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:18
S17	217	((contactless) near (POS or payment or transaction)) and (electronic or digital) near (receipt or bill or invoice)	US-PGPUB; USPAT; USOCR;	OR	ON	2014/04/24 10:18

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S18	165	S17 and (provision$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:18
S19	124	S18 and NFC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:18
S20	58	S17 and (restaurant)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:30
S21	139	((contactless or NFC) near (POS or payment or transaction)) and (send$4 or transmit$4) near (receipt or bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:46
S22	59	S21 and (restaurant)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/24 10:46
S23	64	(wireless or mobile) near POS and (contactless near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/25 21:46
S24	4	POS near (contactless near (card))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/25 22:10
S25	1838	POS near ((card))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/25 22:11
S26	100	S25 and (contactless near (transaction	US-PGPUB;	OR	ON	2014/04/25

		or payment))	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			22:11
S27	16	(portable) near POS and ((nfc or contactless) near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 20:39
S28	17	folio and nfc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:33
S29	0	(restaurant near folio) and nfc	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:37
S30	273	(restaurant or table) and (nfc near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:38
S31	165	S30 and provision$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:38
S32	55	S31 and emulat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:39
S33	32	proximity near mobile near payment	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:46
S34	403	(mobile near (transaction or payment)) and (smartcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/04/26 21:58

			IBM_TDB			
S35	29	(mobile near (transaction or payment)) with (smartcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 21:59
S36	0	(smartcard-smartcard) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:14
S37	9	(mobile near phone) with (smartcard)near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:14
S38	2	(mobile near phone) near (transaction or payment) and (smartcard)near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:27
S39	0	(mobile near phone) near (transaction or payment) and (smartcard)near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:28
S40	9	(mobile near phone) and (smartcard)near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:29
S41	67	(person-person) or (peer-peer) and (smartcard near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:35
S42	4	(smartcard or chipcard) and (POS near emulat$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:48
S43	9	(nfc) and (POS near emulat$4)	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2014/04/26 22:49

			EPO; JPO; DERWENT; IBM_TDB			
S44	0	proximity near smartcard near payment	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/26 22:59
S45	3	"20130124351"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:04
S46	54	(portable or mobile or slim or wireless) near (POS or "transaction terminal") and (nfc or emv or smartcard) near (reader)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:14
S47	67	(portable or mobile or slim or wireless) near (nfc or emv or smartcard) near (POS or "transaction terminal" or reader)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:17
S48	123	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (POS or "transaction terminal" or reader)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 06:25
S49	0	(portable or mobile or slim or wireless) near (rfid) near (POS or "transaction terminal")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 07:22
S50	99	(rfid) near (POS or "transaction terminal")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:18
S51	598	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) and (mobile or wireless or cellular) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:19
S52	104	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or	US-PGPUB; USPAT;	OR	ON	2014/04/29 09:21

		contactless) near (device or terminal) and (mobile or wireless or cellular) near (payment or transaction)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S53	11	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (device or terminal) and (digital or electronic) near (bill or invoice or check)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:28
S54	6	(portable or mobile or wireless) near (contactless) near (transaction or payment) near (device or terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:32
S55	0	S51 and (person-person or peer-peer) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:42
S56	5	(person-person or peer-peer) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:42
S57	0	("peer to peer") near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:42
S58	1128	(peer) near (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:43
S59	133	S58 and (nfc or emv or smartcard or contactless) near (device or terminal)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:43
S60	10	S59 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 09:49

S61	550	(portable or mobile or slim or wireless) near (nfc or emv or smartcard or contactless) near (device or terminal or scanner)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 10:05
S62	1	S61 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 10:05
S63	0	("2013/0221092").URPN.	USPAT	OR	ON	2014/04/29 11:16
S64	229	(mobile or cellular near phone) and (smartcard)near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:27
S65	180	((mobile or cellular) near phone) and (smartcard)near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:27
S66	1	S65 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:28
S67	46	S65 and emulat$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:29
S68	1776	(electronic near (transaction or payment) near card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:32
S69	397	S68 and (nfc or emv or smartcard or contactless)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/29 11:32
S70	49	S69 and (send$4 or transmit$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR;	OR	ON	2014/04/29 11:32

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S71	3	"20130024383"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 07:06
S72	3	"20130132219"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:14
S73	258	TSM with (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:32
S74	161	S73 and (nfc or emv or smartcard or chipcard)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:32
S75	14	S74 and SAM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:33
S76	147	S74 and "secure element"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 09:33
S77	2	"20130218766"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 11:58
S78	41	(TSM or "trusted service") and (transaction or payment) near sett$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 13:56
S79	3	13/245498	US-PGPUB;	OR	ON	2014/05/02

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:59
S80	531	provision$4 near (POS or merchant or vendor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 14:07
S81	3	S80 and (TSM or "trusted service") and (transaction or payment)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 14:08
S82	2	12/563444	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 18:16
S83	27	(TSM or "trusted service") and (transaction or payment) near settl$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 18:45
S84	5	(TSM or "trusted service") and (purchase) near settl$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 19:55
S85	88	(TSM or "trusted service") and (verif$4 or confirm$4) near (purchase or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 19:56
S86	34	S85 and "secure element"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/02 19:58
S87	393	(TSM or "trusted service") and (purchase or transaction) near (process$4 or settl$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/05/04 12:17

			IBM_TDB			
S88	152	S87 and (smartcard or chipcard or nfc)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:19
S89	131	S88 and (secure near element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:19
S90	58	S89 and (electronic near (purse or wallet))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:20
S91	19	S89 and (SAM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 12:20
S92	2230	(electronic near (purse or wallet)) and (payment or transaction) near (settl$4 or process$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 14:42
S93	41	S92 and (TSM)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/04 14:43
S94	59	(mobile near nfc near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/10 17:20
S95	415	(smartcard or chipcard) and (mobile near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/11 15:04
S96	54	S95 and (secure near element)	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2014/05/11 15:05

			EPO; JPO; DERWENT; IBM_TDB			
S97	53	S96 and (provisioning or personal$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/11 15:24
S98	25	S96 and (provisioning or personaliz$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/11 15:24
S99	78	(smartcard or chipcard) and (nfc near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 15:16
S100	42	S99 and (payment near process$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 15:16
S101	248	(nfc with (invoic$4 or bill$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:13
S102	78	S101 and (mobile near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:14
S103	25	(nfc with mobile near (invoic$4 or bill$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:49
S104	0	(secure near element) and (mobile near (billing or invoic$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:52
S105	549	(secure near element) and ((billing or invoic$4))	US-PGPUB; USPAT;	OR	ON	2014/05/13 22:52

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S106	83	S105 and (mobile near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/13 22:53
S107	41	(smartcard or chipcard) and ((storing or saving) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:07
S108	0	(nfc near (transaction or payment)) and ((storing or saving) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:08
S109	175	(nfc near (transaction or payment)) and ((bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:08
S110	0	(secure adj element) and ((storing or saving) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:09
S111	107	(secure adj element) and ((transmit$4 or receiv$4) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:09
S112	2	S111 and (nfc near (transaction or payment)) and ((bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10
S113	2	S111 and (nfc near (transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10

S114	106	(nfc near (transaction or payment)) and ((bill or invoice) near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10
S115	15	S114 and TSM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:10
S116	589	(smartcard or chipcard or emv) and ((bill or invoice) near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S117	0	S116 and TSM	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S118	246	S116 and trusted	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S119	27	S116 and trusted near service	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:12
S120	55	(smartcard or chipcard or emv) with ((bill or invoice) near (payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/14 23:14
S121	15	"security authentication module" and (electronic or virtual) near (purse or wallet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/05/15 14:36
S122	10	"security authentication module" and (mobile near (purchase or payment or transaction))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/05/15 14:47

			DERWENT; IBM_TDB			
S123	66	(personal$4) near (secure adj element)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/02 14:59
S124	21	S123 and (identif$4 near issuer)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/02 15:00
S125	2	"20120290376"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/02 16:15
S126	1	((identif$4 or match$4 or locat$4) near issuer) same ((match$4 or compar$4) near (device or element) near (ID or identif$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:16
S127	0	((identif$4 or match$4 or locat$4) near issuer) same ((match$4 or compar$4) near (secure adj element) near (ID or identif$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:17
S128	4	((identif$4 or match$4 or locat$4) near issuer) same ((secure adj element) near (ID or identif$4))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:18
S129	1	(mobile-mobile) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:40
S130	30	(mobile adj mobile) near (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/03 14:40
S131	1	S130 and (secure adj element)	US-PGPUB; USPAT; USOCR;	OR	ON	2014/10/03 14:41

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S132	1102	(smartcard or chipcard) and (fund adj transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S133	1	S132 and (personal$4 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S134	97	S132 and (personal$6near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S135	1	S132 and (personal$6 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:55
S136	11	(Fund adj transfer) and (personal$6 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:56
S137	137	("20010011250" | "20010021927" | "20010027441" | "20010039657" | "20020004783" | "20020042776" | "20020068554" | "20020194138" | "20030023954" | "20030074579" | "20030140176" | "20040029569" | "20040030601" | "20040123152" | "20040128259" | "20040140351" | "20050001711" | "20050071418" | "20050091659" | "20050102679" | "20050149926" | "20050184163" | "20050184164" | "20050184165" | "20050188360" | "20050193218" | "20050222961" | "20060036570" | "20060041507" | "20060126831" | "20060165060" | "20060219774" | "20070067325" | "20070090195" | "20070135164" | "20070169043" | "20070226786" | "20080056501" | "20080073426" | "20080130902" | "20080162834" | "20080167988" | "20080208681" | "20080208762" | "20080270253" | "20090158028" |	US-PGPUB; USPAT; USOCR	OR	ON	2014/10/09 15:57

		"20090239512" | "20090261172" | "20090307142" | "20090312011" | "20100012732" | "20100042824" | "20100050271" | "20100058463" | "20100063893" | "20100088237" | "20100114731" | "20100131413" | "20100138518" | "20100203870" | "20100205432" | "20100207742" | "20100211507" | "20100250956" | "20100291896" | "20100291904" | "20100306076" | "20100306107" | "20100306531" | "20100323681" | "20100330958" | "20110016275" | "20110029671" | "20110072425" | "20110078081" | "20110087610" | "20110113473" | "20110131421" | "20120009873" | "20120129452" | "4851653" | "5221838" | "5991399" | "6005942" | "6092201" | "6101477" | "6141752" | "6151657" | "6230267" | "6233683" | "6402028" | "6434238" | "6484174" | "6601761" | "6609113" | "6633984" | "6647260" | "6792536").PN. OR ("6823520" | "6907608" | "6922835" | "6963270" | "7093122" | "7140549" | "7152782" | "7159180" | "7165727" | "7191288" | "7206769" | "7232073" | "7243853" | "7275685" | "7346170" | "7349885" | "7353396" | "7360691" | "7374099" | "7382762" | "7395535" | "7469151" | "7478389" | "7502946" | "7607175" | "7631346" | "7631810" | "7708198" | "7712658" | "7739731" | "7860486" | "7967215" | "8120460" | "8126806" | "8150767" | "8171137").PN. OR ("8429409").URPN.				
S138	0	contactless near (Fund adj transfer) and ((secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:59
S139	0	contactless near (Fund adj transfer$4) and ((secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 15:59
S140	11	(Fund adj transfer$4) and (personal$6 near (secure adj element))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:00
S141	9	S132 and (updat$4 or modify$4 or edit$4 or chang$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2014/10/09 16:02

			DERWENT; IBM_TDB			
S142	8	(contactless near (transaction or payment)) and (updat$4 or modify$4 or edit$4 or chang$4) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:03
S143	580	(contactless near (transaction or payment)) and (fund$1 near transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:04
S144	9	mobile adj (contactless near (transaction or payment)) and (fund$1 near transfer$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:04
S145	5	(contactless) near (bill or invoice)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:06
S146	1	(contactless near (transaction or payment)) and (virtual near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:08
S147	0	(contactless near (transaction or payment)) and (digital near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:09
S148	0	(EMV near (transaction or payment)) and (digital near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:12
S149	1	(EMV near (transaction or payment)) and ((digital or electronic or mobile or wireless)near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:13
S150	41	(EMV near (transaction or payment)) and ((bill or invoice))	US-PGPUB; USPAT; USOCR;	OR	ON	2014/10/09 16:13

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S151	56	((EMV or chipcard or smartcard) near (transaction or payment)) and ((digital or electronic or mobile or wireless)near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:13
S152	64	((contactless) near (transaction or payment)) and ((digital or electronic or mobile or wireless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:17
S153	62	((contactless) near (transaction or payment)) and ((digital or electronic or paperless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:53
S154	6410	((digital or electronic or paperless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 16:54
S155	2	"20130151400"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:03
S156	0	((mobile or wireless or cellular) adj (contactless) near (purchase or transaction or payment)) and ((digital or electronic or mobile or wireless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:05
S157	73	((mobile or wireless or cellular) adj (contactless) near (purchase or transaction or payment))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:05
S158	0	S157 and ((digital or electronic or mobile or wireless) near (bill or invoice))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/10/09 17:05
S159	0	S157 and ((digital or electronic or	US-PGPUB;	OR	ON	2014/10/09

		paperless) near (bill or invoice))	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			17:05
S181	215	(contactless or NFC or wireless or proximity) adj (billing or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 15:36
S182	8	S181 and (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 15:39
S183	52	(contactless or NFC or wireless or proximity) adj (payment or transaction or purchase) and (electronic adj (invoic$4 or billing))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 15:41
S184	886	(contactless or NFC or wireless or proximity) adj (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 18:00
S185	32	S184 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:01
S186	648	POS adj card	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:29
S187	7	S186 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:29
S188	1	cashless adj POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2017/09/18 18:31

			IBM_TDB			
S189	2	cashless near POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:32
S190	283	cashless same POS	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:32
S191	2	S190 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 18:35
S192	17804	(SIM) same (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:12
S193	564	(SIM adj card) same (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:12
S194	9	(SIM adj card) near (POS)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:12
S195	11	("20010056398" | "20020097715" | "20020120537" | "20030060246" | "20070295803" | "20100030634" | "20100161478" | "6598028" | "7540408" | "7603312" | "8281991").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/09/18 20:15
S196	2	(card-to-card) near payment	US-PGPUB; USPAT; USOCR	OR	OFF	2017/09/18 20:17
S197	48	POS and generat$4 near (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:18
S198	3936	(mobile or m) adj POS	US-PGPUB;	OR	ON	2017/09/18

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			20:49
S199	4	S198 and generat$4 near (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:49
S200	16	S198 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:49
S201	114	S198 and (contactless or NFC or wireless or proximity) adj (payment or transaction or purchase)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 20:54
S202	109	S198 and (SIM adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:55
S203	114	S198 and ((nfc or contactless or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:55
S204	8	S203 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:56
S205	234	merchant adj wallet	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 20:58
S206	51	merchant adj (mobile adj wallet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2017/09/18 20:58

			IBM_TDB			
S207	222	((mobile or m) adj POS) and ((contactless or smart or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:05
S208	69	((mobile or m) adj POS) same ((contactless or smart or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:05
S209	1545	((payment or transaction) adj terminal) same ((contactless or smart or chip) adj card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:16
S210	0	S209 and generat$4 near (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:16
S211	21	S209 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:16
S212	91	((peer-to-peer) adj (payment or transaction)) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 21:20
S213	58	S212 and (electronic or digital) near (bill$4 or invoic$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/09/18 21:21
S214	0	((peer-to-peer) adj (POS)) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 21:22
S215	1	((peer-to-peer) adj (POS))	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/09/18 21:22

			EPO; JPO; DERWENT; IBM_TDB			
S216	4	("20070233554" | "20100227553" | "20120092137" | "8229354").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/09/18 21:23
S217	1	(POS near emulat$4) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/18 21:24
S218	56	(POS near application) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:08
S219	11745	POS and SOC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:09
S220	2680	POS and (system near chip)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:10
S221	366	POS and (system-on-chip)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:10
S222	12	POS same (system-on-chip)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:10
S223	47	((touch or tap) adj (payment or transaction)) and (contactless or NFC or wireless or proximity) adj (card)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/09/19 09:13
S224	8566	(contactless or NFC or wireless or proximity) adj (payment or transaction)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/09/19 09:21