

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

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Applicant's or agent's file reference
PA168187PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/IB 18/56483

International filing date (day/month/year)

27 August 2018 (27.08.2018)

Priority date (day/month/year)

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International Patent Classification (IPC) or both national classification and IPC

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CPC - G06Q 20/0855, G06Q 20/12, G06Q 20/382, G06Q 20/401, G06Q 20/04, G06Q 20/027, G06Q 20/10, G06Q 20/02, G06Q 20/382, G06Q 20/3674, G06Q 30/06, G06Q 20/40

Applicant FIREID INC

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/US
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Date of completion of this opinion

24 November 2018

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Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:
- the international application in the language in which it was filed.
- a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43*bis*.1(a)).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
- a. forming part of the international application as filed:
- in the form of an Annex C/ST.25 text file.
- on paper or in the form of an image file.
- b. furnished together with the international application under PCT Rule 13*ter*.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
- c. furnished subsequent to the international filing date for the purposes of international search only:
- in the form of an Annex C/ST.25 text file (Rule 13*ter*.1(a)).
- on paper or in the form of an image file (Rule 13*ter*.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>NONE</u>	YES
	Claims	<u>1-39</u>	NO
Inventive step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-39</u>	NO
Industrial applicability (IA)	Claims	<u>1-39</u>	YES
	Claims	<u>NONE</u>	NO

2. Citations and explanations:

Claims 1-39 lack novelty under PCT Article 33(2) as being anticipated by US 2015/0310423 A1 to MasterCard Mobile Transaction Solutions, Inc. (hereinafter "MasterCard").

Regarding claim 1, MasterCard discloses a system for handling/attending to a payment request to pay a particular entity (The payment facilitator may route the transaction to the issuer of the payment card at a next step, para [0547]), wherein the system includes: a communication module which is configured to receive a payment request from/on behalf of a client to pay the particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602, para [0546], Fig. 56); and a micro-service control arrangement which is configured to retrieve a client-customised computer program for the particular client and execute it (The consumer may then launch a payment facilitator mobile application 5604 on the mobile phone and may be required to enter a payment facilitator managed login credential (for example, PIN, password, or passphrase and the like), para [0545], Fig. 56).

Regarding claim 2, MasterCard discloses which includes: a transaction module which is configured to send information on the payment request to the micro-service control arrangement, wherein the micro-service control arrangement is configured to retrieve the client-customised computer program for the particular client and execute it in an environment which is isolated from the transaction module (A secure ecosystem infrastructure that may enable multiple types of electronic wallets in a multi-domain ecosystem of issuers, service providers, and acquirers of instruments may include client-side functionality including a wallet container operable on a mobile device that facilitates isolation of a plurality of distinct wallets and further facilitates accessing each distinct wallet through widget modules configured into the wallet container and securely maintained as separate modules, wherein each widget must be authenticated to access any wallet, para [0158]).

Regarding claim 3, MasterCard discloses wherein the micro-service control arrangement is configured, by executing the client-customised computer program, to determine whether to accept or decline the payment request based on one or more custom rules which were created/added by the client, and send an indication of the decision to the transaction module (The merchant widget may be launched in a "Pay" mode and present a list of payment options accepted at the merchant POS 5602, para [0545], Fig. 56).

Regarding claim 4, MasterCard discloses wherein the transaction module is configured to receive the indication to proceed or decline with the payment request from the micro-service control arrangement (The state 2608 may include a TRANSACTION COMPLETED state, indicating that the PoS terminal may have completed phase 2 of the transaction and COUPON REDEMPTION STATUS may have been set. Further, this state 2608 may indicate that the wallet client may now proceed with phase 3 of the transaction. The coupon applet may remain in this state till the applet receives a valid RESET COUPONS command or a valid ABORT TRANSACTION command, para [0308], Fig. 26); and either decline the payment request, when the received indication is to decline the request, or proceeding with the payment request, when the received indication is to proceed with the payment request, by transferring money from a first account which is associated with the client into a second account which is associated with the particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602. The SDP may transfer a transaction payload formatted for the merchant POS 5602, para [0546], Fig. 56).

Regarding claim 5, MasterCard discloses wherein the client-customised computer program is provided in a secure sandbox environment (In an example, one or more use cases for the widget may include a Test Widget use case, wherein the developer may test the widgets using both a dummy container and possibly a sandbox wallet application, para [0179]).

Regarding claim 6, MasterCard discloses wherein the micro-service control arrangement is configured to provide a micro-service architecture within a secure sandbox environment (With reference to FIG. 23, there is illustrated an exemplary and non-limiting embodiment of a widget architecture that may facilitate isolating distinct service provider widgets within a wallet container on a client device in a multi-domain ecosystem for secure personalized transactions, para [0249], Fig. 23).

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of:
Box V, item 2. Citations and explanations:

Regarding claim 7, MasterCard discloses wherein the micro-service control arrangement is configured to receive instructions from a client to change/add rule(s) which is/are specifically relevant to an account which is associated with the client, and incorporate the changes/additions to the rule(s) into the client-customised computer program for the particular client (In accordance with various embodiments, the wallet may securely store and protect consumer payment account information, organizing and managing lifecycle of consumer payment accounts, implement strong authentication as required to access the accounts, provide options for selection of a specific account for a transaction, execute the transaction with the POS 5402 or payment gateway with the selected account, implement and enforce business rules governing access to the accounts and transactions using these accounts, para [0508], Fig. 54).

Regarding claim 8, MasterCard discloses which includes a client interface via which a client can log into the system and change/add rule(s) which is/are specifically relevant to the account (The wallet view 5520 may be a user interface associated with the wallet such as to facilitate access, interaction, population, and management of the wallets by respective users through means provided by the wallet view 5520, para [0517], Fig. 55).

Regarding claim 9, MasterCard discloses wherein the communication module is configured to receive the payment request via a communication network (Various exemplary components of the payment facilitator SDP 5508 may be described herein. In an example, the payment facilitator SDP 5508 may include a communication component, para [0526], Fig. 55).

Regarding claim 10, MasterCard discloses wherein the communication module is configured to receive the payment request via a communication network from a computing/payment terminal (In exemplary and non-limiting embodiments, for affecting the mobile payment a consumer may have to first arrive at checkout terminal and items to be purchased may be scanned, para [0531]).

Regarding claim 11, MasterCard discloses wherein the first account is the client's account (However, as described herein a wallet will have privileged control over the application to maintain a highly secure and separated environment for use and access to wallet information that may include user account, personal, and transaction-related content, among other things, para [0248]).

Regarding claim 12, MasterCard discloses wherein the first and second accounts are bank accounts (The instruments may include business specific data objects (for example, credit card, bank account, bill, coupons, etc.) that may be reused across various services and may provide a commonly understood definition for the object and implementation for the rules governing the object's lifecycle and transaction, para [0088]).

Regarding claim 13, MasterCard discloses wherein the payment request is received from a bankcard terminal (The ecosystem may include acquisition functionality, such as through various point-of-sale (PoS) terminals and over the air transactions, para [0127]).

Regarding claim 14, MasterCard discloses a system for performing/facilitating a financial transaction (The payment facilitator may route the transaction to the issuer of the payment card at a next step, para [0547]), wherein the system includes: a communication module which is configured to receive a payment request from/on behalf of a client to pay the particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602, para [0546], Fig. 56); and a micro-service control arrangement which is configured to retrieve a client-customised computer program for the particular client and execute it (The consumer may then launch a payment facilitator mobile application 5604 on the mobile phone and may be required to enter a payment facilitator managed login credential (for example, PIN, password, or passphrase and the like), para [0545], Fig. 56).

Regarding claim 15, MasterCard discloses which includes: a transaction module which is configured to send information on the payment request to the micro-service control arrangement, wherein the micro-service control arrangement is configured to retrieve the client-customised computer program for the particular client and execute it in an environment which is isolated from the transaction module (A secure ecosystem infrastructure that may enable multiple types of electronic wallets in a multi-domain ecosystem of issuers, service providers, and acquirers of instruments may include client-side functionality including a wallet container operable on a mobile device that facilitates isolation of a plurality of distinct wallets and further facilitates accessing each distinct wallet through widget modules configured into the wallet container and securely maintained as separate modules, wherein each widget must be authenticated to access any wallet, para [0158]).

Regarding claim 16, MasterCard discloses wherein the micro-service control arrangement is configured, by executing the client-customised computer program, to determine whether to accept or decline the payment request based on one or more custom rules which were created/added by the client, and send an indication of the decision to the transaction module (The merchant widget may be launched in a "Pay" mode and present a list of payment options accepted at the merchant POS 5602, para [0545], Fig. 56).

Regarding claim 17, MasterCard discloses wherein the transaction module is configured to receive the indication to proceed or decline with the payment request from the micro-service control arrangement (The state 2608 may include a TRANSACTION COMPLETED state, indicating that the PoS terminal may have completed phase 2 of the transaction and COUPON REDEMPTION STATUS may have been set. Further, this state 2608 may indicate that the wallet client may now proceed with phase 3 of the transaction. The coupon applet may remain in this state till the applet receives a valid RESET COUPONS command or a valid ABORT TRANSACTION command, para [0308], Fig. 26); and either decline the payment request, when the received indication is to decline the request, or proceeding with the payment request, when the received indication is to proceed with the payment request, by transferring money from a first account which is associated with the client into a second account which is associated with the particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602. The SDP may transfer a transaction payload formatted for the merchant POS 5602, para [0546], Fig. 56).

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Continuation of:
Box V, item 2. Citations and explanations:

Regarding claim 18, MasterCard discloses wherein the client-customised computer program is provided in a secure sandbox environment (In an example, one or more use cases for the widget may include a Test Widget use case, wherein the developer may test the widgets using both a dummy container and possible a sandbox wallet application, para [0179]).

Regarding claim 19, MasterCard discloses wherein the micro-service control arrangement is configured to provide a micro-service architecture within a secure sandbox environment (With reference to FIG. 23, there is illustrated an exemplary and non-limiting embodiment of a widget architecture that may facilitate isolating distinct service provider widgets within a wallet container on a client device in a multi-domain ecosystem for secure personalized transactions, para [0249], Fig. 23).

Regarding claim 20, MasterCard discloses wherein the micro-service control arrangement is configured to receive instructions from a client to change/add rule(s) which is/are specifically relevant to an account which is associated with the client, and incorporate the changes/additions to the rule(s) into the client-customised computer program for the particular client (In accordance with various embodiments, the wallet may securely store and protect consumer payment account information, organizing and managing lifecycle of consumer payment accounts, implement strong authentication as required to access the accounts, provide options for selection of a specific account for a transaction, execute the transaction with the POS 5402 or payment gateway with the selected account, implement and enforce business rules governing access to the accounts and transactions using these accounts, para [0508], Fig. 54).

Regarding claim 21, MasterCard discloses which includes a client interface via which a client can log into the system and change/add rule(s) which is/are specifically relevant to the account (The wallet view 5520 may be a user interface associated with the wallet such as to facilitate access, interaction, population, and management of the wallets by respective users through means provided by the wallet view 5520, para [0517], Fig. 55).

Regarding claim 22, MasterCard discloses wherein the communication module is configured to receive the payment request via a communication network (Various exemplary components of the payment facilitator SDP 5508 may be described herein. In an example, the payment facilitator SDP 5508 may include a communication component, para [0526], Fig. 55).

Regarding claim 23, MasterCard discloses wherein the communication module is configured to receive the payment request via a communication network from a computing/payment terminal (In exemplary and non-limiting embodiments, for affecting the mobile payment a consumer may have to first arrive at checkout terminal and items to be purchased may be scanned, para [0531]).

Regarding claim 24, MasterCard discloses wherein the first and second accounts are bank accounts (The instruments may include business specific data objects (for example, credit card, bank account, bill, coupons, etc.) that may be reused across various services and may provide a commonly understood definition for the object and implementation for the rules governing the object's lifecycle and transaction, para [0088]).

Regarding claim 25, MasterCard discloses wherein the payment request is received from a bankcard terminal (The ecosystem may include acquisition functionality, such as through various point-of-sale (PoS) terminals and over the air transactions, para [0127]).

Regarding claim 26, MasterCard discloses a method of handling/attending to a payment request or performing/facilitating a financial transaction (The payment facilitator may route the transaction to the issuer of the payment card at a next step, para [0547]), wherein the method includes: receiving a payment request from, or on behalf of, a client to pay a particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602, para [0546], Fig. 56); send information on the payment request to a micro-service control arrangement; and retrieving a client-customised computer program for the particular client and executing it (The consumer may then launch a payment facilitator mobile application 5604 on the mobile phone and may be required to enter a payment facilitator managed login credential (for example, PIN, password, or passphrase and the like), para [0545], Fig. 56).

Regarding claim 27, MasterCard discloses wherein the execution step more specifically includes executing the client-customised computer program in an isolated environment (A secure ecosystem infrastructure that may enable multiple types of electronic wallets in a multi-domain ecosystem of issuers, service providers, and acquirers of instruments may include client-side functionality including a wallet container operable on a mobile device that facilitates isolation of a plurality of distinct wallets and further facilitates accessing each distinct wallet through widget modules configured into the wallet container and securely maintained as separate modules, wherein each widget must be authenticated to access any wallet, para [0158]).

Regarding claim 28, MasterCard discloses which includes determining whether to accept or decline the payment request based on one or more custom rules provided/included in the client-customised computer program (The merchant widget may be launched in a "Pay" mode and present a list of payment options accepted at the merchant POS 5602, para [0545], Fig. 56).

Regarding claim 29, MasterCard discloses which further includes sending an indication of the decision to a transaction module (The SE may provide a service to the wallet to accept the user ID and the widget hash and return the verification status as well as the ACL, para [0239]).

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Regarding claim 30, MasterCard discloses which includes, at the transaction module, either declining the payment request, when the received indication is to decline the request, or proceeding with the payment request, when the received indication is to proceed with the payment request, by transferring money from a first account which is associated with the client into a second account which is associated with the particular entity (The state 2608 may include a TRANSACTION COMPLETED state, indicating that the PoS terminal may have completed phase 2 of the transaction and COUPON REDEMPTION STATUS may have been set. Further, this state 2608 may indicate that the wallet client may now proceed with phase 3 of the transaction. The coupon applet may remain in this state till the applet receives a valid RESET COUPONS command or a valid ABORT TRANSACTION command, para [0308], Fig. 26).

Regarding claim 31, MasterCard discloses wherein the client-customised computer program is executed by a processor of the micro-service control arrangement (With reference to FIG. 23, there is illustrated an exemplary and non-limiting embodiment of a widget architecture that may facilitate isolating distinct service provider widgets within a wallet container on a client device in a multi-domain ecosystem for secure personalized transactions, para [0249], Fig. 23).

Regarding claim 32, MasterCard discloses wherein the client-customised computer program is provided in a secure sandbox environment (In an example, one or more use cases for the widget may include a Test Widget use case, wherein the developer may test the widgets using both a dummy container and possible a sandbox wallet application, para [0179]).

Regarding claim 33, MasterCard discloses wherein the micro-service control arrangement is configured to provide a micro-service architecture within a secure sandbox environment (In an example, one or more use cases for the widget may include a Test Widget use case, wherein the developer may test the widgets using both a dummy container and possible a sandbox wallet application, para [0179]).

Regarding claim 34, MasterCard discloses which includes allowing a client to edit one or more rules which relate to payments from the first account which is associated with the client, within a secure sandbox environment (In accordance with various embodiments, the wallet may securely store and protect consumer payment account information, organizing and managing lifecycle of consumer payment accounts, implement strong authentication as required to access the accounts, provide options for selection of a specific account for a transaction, execute the transaction with the POS 5402 or payment gateway with the selected account, implement and enforce business rules governing access to the accounts and transactions using these accounts, para [0508], Fig. 54).

Regarding claim 35, MasterCard discloses which includes receiving instructions on one or more rules from a client for his specific client-customised computer program via a client portal (The wallet view 5520 may be a user interface associated with the wallet such as to facilitate access, interaction, population, and management of the wallets by respective users through means provided by the wallet view 5520, para [0517], Fig. 55).

Regarding claim 36, MasterCard discloses a method of controlling/regulating at least part of a financial transaction (The payment facilitator may route the transaction to the issuer of the payment card at a next step, para [0547]), wherein the method includes: receiving information on a payment request from a client (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602, para [0546], Fig. 56); and within a micro-service(s) architecture, determining whether to accept or decline the payment request based on one or more custom rules which were created/added by the client (In accordance with various embodiments, the wallet may securely store and protect consumer payment account information, organizing and managing lifecycle of consumer payment accounts, implement strong authentication as required to access the accounts, provide options for selection of a specific account for a transaction, execute the transaction with the POS 5402 or payment gateway with the selected account, implement and enforce business rules governing access to the accounts and transactions using these accounts, para [0508], Fig. 54).

Regarding claim 37, MasterCard discloses a method of adapting/changing rules for financial transactions (The payment facilitator may route the transaction to the issuer of the payment card at a next step, para [0547]), wherein the method includes: receiving login information from a client via a computing terminal (The consumer may then launch a payment facilitator mobile application 5604 on the mobile phone and may be required to enter a payment facilitator managed login credential (for example, PIN, password, or passphrase and the like), para [0545], Fig. 56); providing the client with a secure, isolated/sandboxed environment within which the client can add/change one or more rules which relate to financial transactions related to his/her account (In an example, one or more use cases for the widget may include a Test Widget use case, wherein the developer may test the widgets using both a dummy container and possible a sandbox wallet application, para [0179]); implementing the one or more rules when a payment instruction for the client is received (In accordance with various embodiments, the wallet may securely store and protect consumer payment account information, organizing and managing lifecycle of consumer payment accounts, implement strong authentication as required to access the accounts, provide options for selection of a specific account for a transaction, execute the transaction with the POS 5402 or payment gateway with the selected account, implement and enforce business rules governing access to the accounts and transactions using these accounts, para [0508], Fig. 54).

Regarding claim 38, MasterCard discloses a system for facilitating a financial transaction, wherein the system includes: a communication module which is configured to receive a payment request from a client to pay a particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602, para [0546], Fig. 56); an identification module which is configured to determine whether an amount of the payment, or at least part thereof, is sponsored by a third party, and is so transferring the payment amount, or at least part thereof, from an account of the third party to either an account of the client or the entity (Specifically, different widgets 2306 may be deployed to facilitate secure personalized transactions in accordance with varying trust models, including among others direct, indirect, brokered, and third-party secured trust models for transaction execution, para [0264], Fig. 23).

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Regarding claim 39, MasterCard discloses a method for facilitating a financial transaction, wherein the method includes: receiving a payment request from a client to pay a particular entity (The merchant widget may request a transaction payload from the SDP that may be sent to the merchant POS 5602 for the corresponding channel supported by the merchant POS 5602, para [0546], Fig. 56); determining whether an amount of the payment, or at least part thereof, is sponsored by a third party, and if so transferring the payment amount, or at least part thereof, from an account of the third party to either an account of the client or the entity (Specifically, different widgets 2306 may be deployed to facilitate secure personalized transactions in accordance with varying trust models, including among others direct, indirect, brokered, and third-party secured trust models for transaction execution, para [0264], Fig. 23).

Claims 1-39 have industrial applicability as defined by PCT Article 33(4), because the subject matter can be made or used in industry.