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(54) Title: METHOD OF PROCESSING A TRANSACTION REQUEST

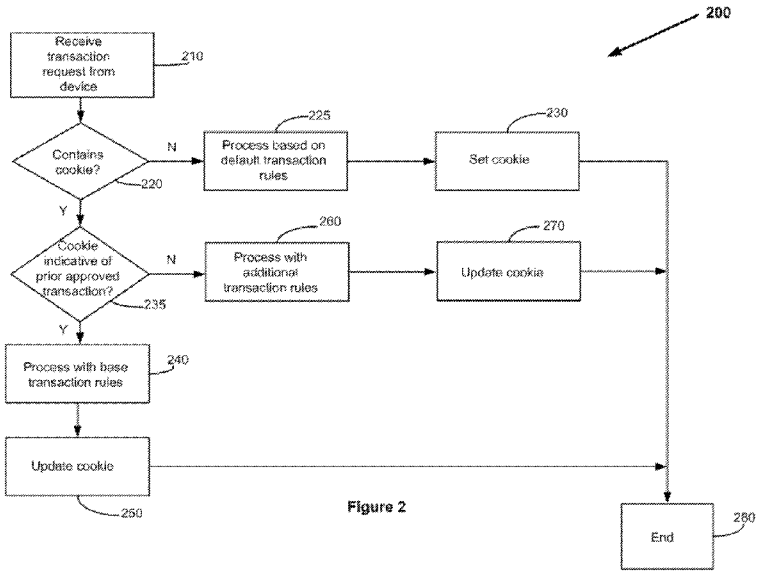

Figure 2

(57) Abstract: A transaction processing system (130) is arranged to receive a transaction request from a user device (110), the transaction processing system (130) comprises a cookie retriever (141) arranged to obtain a cookie (112) stored in a browser application (111) of the user device (110) containing outcome data indicative of an outcome of at least one prior transaction, a processing setter (142) arranged to determine based on the outcome data which of a plurality of transaction processes (152) is to be applied by the transaction processing system (130) to the transaction request, and a transaction processor (143) arranged to process the transaction in accordance with the determined transaction process.

Title

METHOD OF PROCESSING A TRANSACTION REQUEST

Field

The invention relates to a method of processing a transaction request and a transaction processing system.

Background

By providing the facility for consumers to purchase goods and services on-line, merchants expose themselves to the potential for fraudulent transactions through these channels.

Accordingly, there is a need for techniques that mitigate against the risk of fraud.

Summary

In a first aspect, the invention provides a method of processing a transaction request, the method comprising:

receiving a transaction request from a user device at a transaction processing system;

obtaining a cookie stored in a browser application of the user device containing outcome data indicative of an outcome of at least one prior transaction;

determining by the transaction processing system based on the outcome data, which of a plurality of transaction processes is to be applied by the transaction processing system to the transaction request; and

processing the transaction in the transaction processing system in accordance with the determined transaction process.

In an embodiment, determining which of a plurality of transaction processes is to be applied comprises selecting between a plurality of available processes, and at least a first transaction process contains at least one additional validation process than a second transaction process.

In an embodiment, determining which of a plurality of transaction processes is to be applied comprises selecting between a plurality of available processes, and at least a first transaction process contains at least one alternative validation process to a validation process of a second transaction process.

In an embodiment, there are a plurality of available validation processes that can be formed into the plurality of transaction processes and determining which of a the plurality of transaction processes comprises selecting which of the available validation processes will form the transaction process .

In an embodiment, the outcome data comprises a transaction score and determining which of the plurality of transaction processes is to be applied comprises determining to which of the plurality of transaction processes the score corresponds.

In an embodiment, the transaction processing system has a memory storing a plurality of ranges of scores in association with respective transaction processes such that any score uniquely corresponds to a transaction process .

In an embodiment, the method comprises setting a further cookie in the browser application of the user device based on the outcome of the determined transaction process.

In a second aspect, the invention provides a transaction processing system for processing a transaction request, the transaction processing system arranged to receive a transaction request from a user device, the transaction processing system comprising:

a cookie retriever arranged to obtain a cookie stored in a browser application of the user device containing outcome data indicative of an outcome of at least one prior transaction;

a processing setter arranged to determine based on the outcome data which of a plurality of transaction processes is to be applied by the transaction processing system to the transaction request; and

a transaction processor arranged to process the transaction in accordance with the determined transaction process .

In a third aspect, the invention provides computer program code which when executed implements the above method. The invention also provides a tangible computer readable medium comprising the computer program code .

Brief Description of Drawings

Embodiments of the invention will now be described with reference to the accompanying drawings in which:

Figure 1 is a block diagram of a transaction processing system of an embodiment; and

Figure 2 is a flow chart of a method of an embodiment.

Detailed Description

Referring to the drawings, there is shown an embodiment of transaction processing system 130 for implementing a method for processing a transaction request. In Figure 1,

the processor 140 of transaction processing system 130 is shown implementing a number of modules based on program code and data stored in memory 150. Persons skilled in the art will appreciate that one or more of the modules could be implemented in some other way, for example by a dedicated circuit.

The method is implemented by the transaction processing system 130 in response to a customer seeking to purchase an item from the system 130. In this respect, the transaction processing system comprises a product selector 148 implemented by processor 140 which enables a user to browse and select products from the product database 155. In one embodiment, the product selector 148 provides a web interface via which a user can browse products for selection. The product selector 148 may also incorporate known functionality for of e-commerce systems, e.g. a shopping cart application to enable a user to select multiple products to be paid for in a single purchase transaction. In another embodiment, product selection may be implemented by a separate system such that the transaction processing system 130 is employed once a user has chosen products for purchase and is seeking to pay for them. In other embodiments, the transaction may be initiated in another manner, for example by the user selecting a product from an e-mail message sent to the user.

The items in product database 155 may be physical items of some particular value, for example, a mobile handset for $500 or a virtual item such as a recharge voucher for applying credit to a pre-paid mobile phone account. That is, in exchange for payment, the user is provided with a code that they can enter in order to apply credit to a prepaid mobile account and as such, may not be provided with a physical receipt.

Assuming, cookies are enabled in the web browser application 111 on the user's device 110 and the browser 111 has been used in a prior transaction, cookie 112 will include a secured algorithmic output within it that contains outcome data indicative of the outcome of at least the previous transaction outcome. In one example, the transaction outcome can be one of a number of defined outcome statuses such as: completed successful, completed declined, completed fraud risk, completed velocity breach, abandoned, etc. In another embodiment, the transaction outcome data can be a score (for example, a secured number with a range between 0 and 100 to determine the level of risk) or both a defined outcome status and a score.

During a transaction, the cookie retriever 141 of system 130 looks to the user's browser 111 to see if any previous cookies exist. If a cookie exists, then the outcome data is obtained and deciphered by the cooked retriever 141 to obtain the transaction outcome status. In one embodiment, the outcome status is then employed by the processing setter 142 to determine what rules sets and processing may be applied to the in-situ transaction. For example, the processing setter may be arranged to choose between a first set 153 and a second set 154 of transaction processing rules 152.

Thus, for example, in a high volume processing environment the processing setter 142 and processing rules 152 can be arranged so that a transaction outcome with the status "completed fraud risk" undergoes a higher detail of scrutiny than a transaction with a transaction outcome of "completed successful" .

During processing of the transaction, the transaction scorer scores the current transaction based on transaction scoring rules 151 and the cookie setter 141 sets an updated cookie 112 in the browser.

In another embodiment, each successful transaction outcome contains a transaction state and a transaction score which is stored as outcome data in the cookie 112 . The transaction state is a statement as to the end outcome of the transaction, such as completed successful, declined, abandoned, insufficient funds, attempted fraud, velocity breach etc. A three digit number is used to define the transaction state. For example, an approved transaction may hold a transaction state number of 167.

In one embodiment, the transaction score is a number in a defined range which may be, for example between theoretical minus infinity and infinity. In one embodiment of system 130, when the transaction processor 143 processes a transaction, any score over 99 will see that transaction fail. In one embodiment, the transaction score stored in the cookie, scores are restricted to the range to between 0000 and 9999. Scores below zero generate an automatic 0000 score and above 9999 generate a 9999 rating .

A cookie is then issued with the transaction state and transaction score tied together as a masked 7 digit number as part of the cookie's credentials. For example, an approved transaction that had an initial transaction score of 65 may have a smart cookie containing the following string:

878df7653653 1670065 328768768543askh32234srlkh312h8, with the underlined portion encoding the transaction data where the "167" identifies the transaction state (Approved) and the "0065" identifies the transaction score.

The above example indicates to the system 130 that the device having this cookie is a device on which a potentially acceptable user was going to perform a

transaction and select transaction processing rules 152 accordingly .

However, if the embedded code were "2290970", this would indicate that the last transaction was an attempted fraud (where the device was used in previous fraud activities and the transaction score was 970) . In this case, certain other defence mechanisms for the system may slow the transaction processing down. For example, the system may implement additional Device ID checking rules, rainbow forms and the like during the transaction processing.

If the device used for the transaction has cookies turned off, or there is no cookie, or the format of the cookie has been tampered with then the processing setter 142 is arranged such that additional measures for transaction processing are automatically enabled.

In this respect, Figure 1 shows transaction processing rules 152 containing a first set 153 and a second set 154 of rules . The first set 153 and the second set 154 may differ from each other in that the second set 154 contains additional transaction validation processing steps that are undertaken based on the processing score. In another example, alternative transaction validation processing steps may be undertaken, for example the second set 154 may replace a processing step from the first set 153 with an alternative set.

Persons skilled in the art will also appreciate that the presence of two sets of rules in Figure 1 is indicative only and that a number of different sets of rules may be employed depending on the degree of granularity required in processing the transactions .

Further, in one embodiment, the rules may not be established as separate sets but rather a series of

different processing modules that are assembled based on the transaction outcome data that is set.

Referring to Figure 2, there is shown a method in accordance with one embodiment of the invention. In the method 200 a transaction request is received from the device 210. It is then determined whether the browser contains a cookie. If the browser does not contain a cookie then the transaction is processed based on default transaction rules 225 and a cookie is set 230 in the browser for use in future transactions before the processing ends 280. In one example, the default transaction rules may include additional validation processing steps to a base set of rules used when the cookie indicates that a prior transaction has been approved .

If it is determined 220 that the transaction request contains a cookie (in the sense that a cookie can be retrieved from the browser) it is determined whether the cookie is indicative of the prior approved transaction 235. If it is not indicative of a prior approved transaction, the request is processed with additional transaction rules 260 and the cookie is updated 270 and the process ends 280. If the cookie is indicative of a prior transaction that has been approved, it is processed in accordance with base transaction rules 240 and the cookie is updated 250 .

Scoring

In one example, scoring is based on data obtained by the processing system 130 from the user's device. For example, the transaction may involve a customer placing a request to purchase a physical product on a web site managed by the transaction processing system 130. The device "appearing" to be presented by the customer is an Apple

iPhone 4S with iOS 6.1 software installed. Also derived from the device are other ID markings such as:

- name of the device (e.g. the user's iTunes user name)
- telecommunication network provider (the entity that provides the phone service to the user)
- network carrier (the entity that provides the physical infrastructure used by the telecommunication network provider (which may be the same or different)
- serial number of the device
- capacity of the device
- network carrier's operating system version
- WiFi address used for the transaction (if used)
- Bluetooth address of the device (if turned on)
- IMEI (International Mobile Station Equipment Identity) number
- ICCID number (a SIM (subscriber identification module) card serial number
- modem firmware version

The above list is specifically for an Apple iPhone. However, as discussed above, the list would vary based on the device.

The above information is recorded to the extent that it is complete. Some fields for each device ID list are mandatory and some are not and this may differs for different devices. For example, the WiFi address and Bluetooth address of an iPhone device are not mandatory as, in order to collect them, both services need to be turned on. Where these fields are completed, this adds positively (in the sense of improving) an initial score for the first identification data.

For example, the transaction scorer 144 of processing system 130 may initially score an iPhone 5 with all of the above fields with a score of 0 points if the total device information possible is retrieved. (A lower score being

treated as more indicative that the device is trustworthy) . If the WiFi field was not populated but an IP address was received along with the incoming details then the device may be treated as suspicious and granted a score of 25 points .

In one example, the device details are matched internally against existing device details. In one example, the score may be decreased based on the number of transactions previously presented where that particular device was used and the transactions either failed or were considered of a fraudulent nature. Alternatively, a device ID may have been presented previously and have been used in multiple successful transactions. Over time, those individual transactions begin to garner their own score weighting to the initial score. A successful transaction using a particular device ID that was performed 9 months ago and has not had a chargeback or refund against it has a negative score against it (say -5) , whereas a successful transaction performed on the current date may only receive -1 points. The reason for the different scores is that, although a transaction today is successful, a bank may apply a chargeback against the transaction anywhere (generally) up to 180 days past the date of the transaction. In this way a score can reflect more than one transaction outcome.

Points are also allocated based on the outcome of the transaction itself. In this respect transactions can be allocated into different categories with associated point scores such as completed successful, completed declined, completed fraud risk, completed with velocity breach, abandoned , etc .

In an alternative embodiment, these categories can be the outcome data. That is, instead of the transaction being

scored, a category can be allocated to it and stored in the cookie as the outcome data.

Persons skilled in the art will appreciate that in accordance with known techniques , functionality at the server side of the network may be distributed over a plurality of different computers , for example for load balancing or security.

Further aspects of the method will be apparent from the above description of the system. It will be appreciated that at least part of the method will be implemented electronically, for example, digitally by a processor executing program code. In this respect, in the above description certain steps are described as being carried out by the system, it will be appreciated that such steps will often require a number of sub-steps to be carried out for the steps to be implemented electronically, for example due to hardware or programming limitations . For example, to carry out a step such as evaluating, determining or selecting, a processor may need to compute several values and compare those values .

As indicated above, the method may be embodied in program code. The program code could be supplied in a number of ways, for example on a tangible computer readable storage medium, such as a disc or a memory device, e.g. an EEPROM, (for example, that could replace part of memory 103) or as a data signal (for example, by transmitting it from a server) . Further different parts of the program code can be executed by different devices, for example in a client server relationship. Persons skilled in the art will appreciate that program code provides a series of instructions executable by a processor.

Herein the term "processor" is used to refer generically to any device that can process game play instructions in

accordance with game play rules and may include : a microprocessor, microcontroller, programmable logic device or other computational device, a general purpose computer (e.g. a PC) or a server. That is a processor may be provided by any suitable logic circuitry for receiving inputs, processing them in accordance with instructions stored in memory and generating outputs (for example on the display) . Such processors are sometimes also referred to as central processing units (CPUs) . Most processors are general purpose units, however, it is also know to provide a specific purpose processor, for example, an application specific integrated circuit (ASIC) or a field programmable gate array (FPGA) .

It will be understood to persons skilled in the art of the invention that many modifications may be made without departing from the spirit and scope of the invention, in particular it will be apparent that certain features of embodiments of the invention can be employed to form further embodiments .

It is to be understood that, if any prior art is referred to herein, such reference does not constitute an admission that the prior art forms a part of the common general knowledge in the art in any country.

In the claims which follow and in the preceding description of the invention, except where the context requires otherwise due to express language or necessary implication, the word "comprise" or variations such as "comprises" or "comprising" is used in an inclusive sense, i.e. to specify the presence of the stated features but not to preclude the presence or addition of further features in various embodiments of the invention .

CLAIMS :

1 . A method of processing a transaction request, the method comprising:

receiving a transaction request from a user device at a transaction processing system;

obtaining a cookie stored in a browser application of the user device containing outcome data indicative of an outcome of at least one prior transaction;

determining by the transaction processing system based on the outcome data, which of a plurality of transaction processes is to be applied by the transaction processing system to the transaction request; and

processing the transaction in the transaction processing system in accordance with the determined transaction process .

2 . A method as claimed in claim 1, wherein determining which of a plurality of transaction processes is to be applied comprises selecting between a plurality of available processes, and at least a first transaction process contains at least one additional validation process than a second transaction process.

3 . A method as claimed in claim 1, wherein determining which of a plurality of transaction processes is to be applied comprises selecting between a plurality of available processes, and at least a first transaction process contains at least one alternative validation process to a validation process of a second transaction process .

4 . A method as claimed in claim 1, wherein there are a plurality of available validation processes that can be formed into the plurality of transaction processes and determining which of a the plurality of transaction

processes comprises selecting which of the available validation processes will form the transaction process.

5. A method as claimed in any one of claims 1 to 4, wherein the outcome data comprises a transaction score and determining which of the plurality of transaction processes is to be applied comprises determining to which of the plurality of transaction processes the score corresponds.

6. A method as claimed in claim 5, wherein the transaction processing system has a memory storing a plurality of ranges of scores in association with respective transaction processes such that any score uniquely corresponds to a transaction process.

7. A method as claimed in any one of claims 1 to 6, further comprising setting a further cookie in the browser application of the user device based on the outcome of the determined transaction process.

8. A transaction processing system for processing a transaction request, the transaction processing system arranged to receive a transaction request from a user device, the transaction processing system comprising:

a cookie retriever arranged to obtain a cookie stored in a browser application of the user device containing outcome data indicative of an outcome of at least one prior transaction;

a processing setter arranged to determine based on the outcome data which of a plurality of transaction processes is to be applied by the transaction processing system to the transaction request; and

a transaction processor arranged to process the transaction in accordance with the determined transaction process.

9. A transaction processing system as claimed in claim 8, wherein the processing setter is arranged to select between a plurality of available processes, and at least a first transaction process contains at least one additional validation process than a second transaction process.

10. A transaction processing system as claimed in claim 8, wherein the processing setter is arranged to select between a plurality of available processes, and at least a first transaction process contains at least one alternative validation process to a validation process of a second transaction process.

11. A transaction processing system as claimed in claim 8, wherein there are a plurality of available validation processes that can be formed into the plurality of transaction processes and the processing setter is arranged to select which of the available validation processes will form the transaction process.

12. A transaction processing system as claimed in any one of claims 8 to 11, wherein the outcome data comprises a transaction score and the processing setter determines which of the plurality of transaction processes is to be applied by determining to which of the plurality of transaction processes the score corresponds.

13. A transaction processing system as claimed in claim 12, comprising a memory storing a plurality of ranges of scores in association with respective transaction processes such that any score uniquely corresponds to a transaction process.

14. A transaction processing system as claimed in any one of claims 8 to 13, further arranged to set a further cookie in the browser application of the user device based on the outcome of the determined transaction process.

15. Computer program code which when executed implements the method of any one of claims 1 to 7.

16. A tangible computer readable medium comprising the computer program code of claim 8.

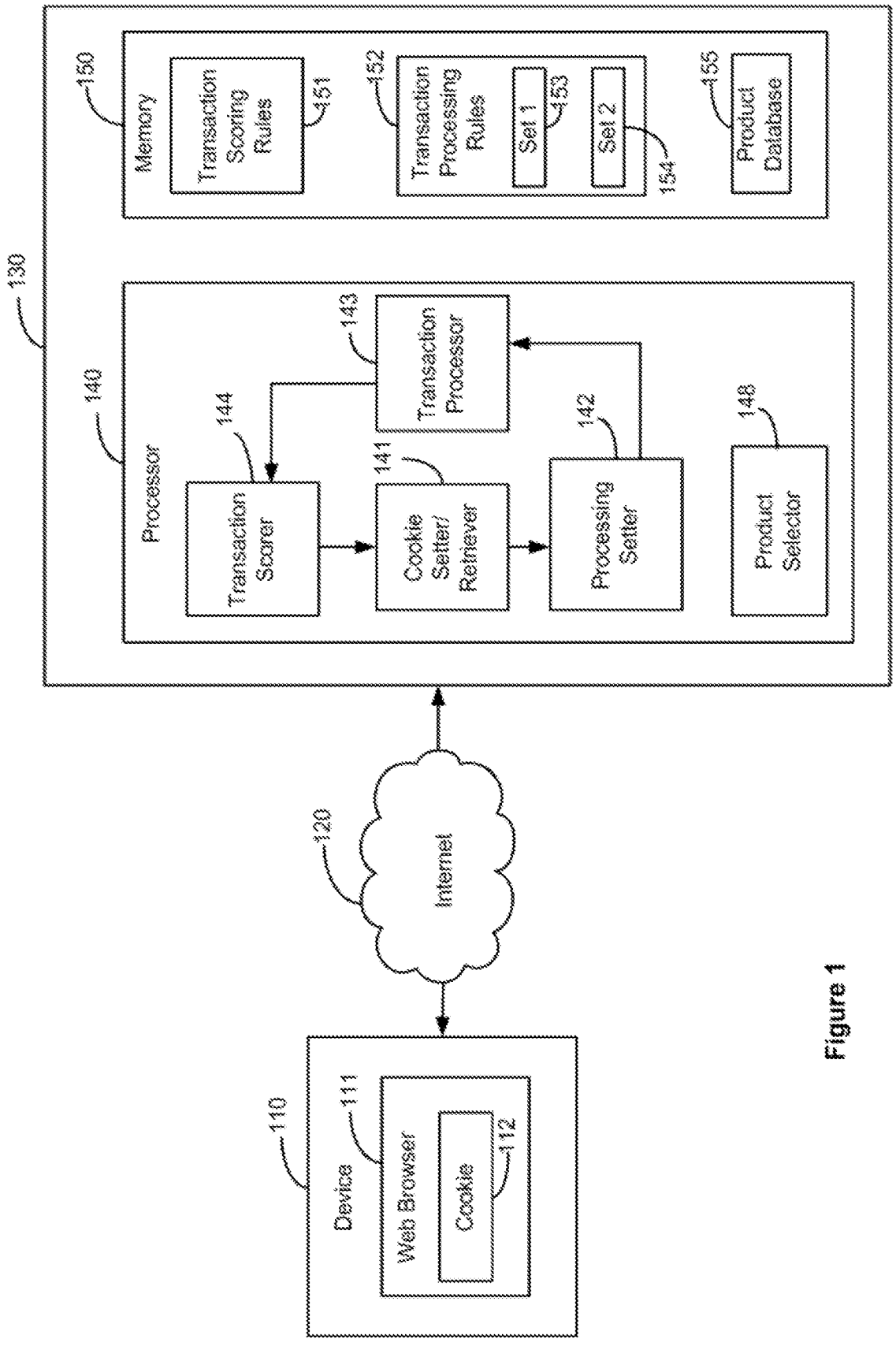
130
150
Memory
Transaction Scoring Rules
151
152
Transaction Processing Rules
Set 1
153
Set 2
154
155
Product Database
140
Processor
143
Transaction Processor
144
Transaction Scorer
141
Cookie Setter/ Retriever
142
Processing Setter
148
Product Selector
120
Internet
110
Device
111
Web Browser
112
Cookie

Figure 1

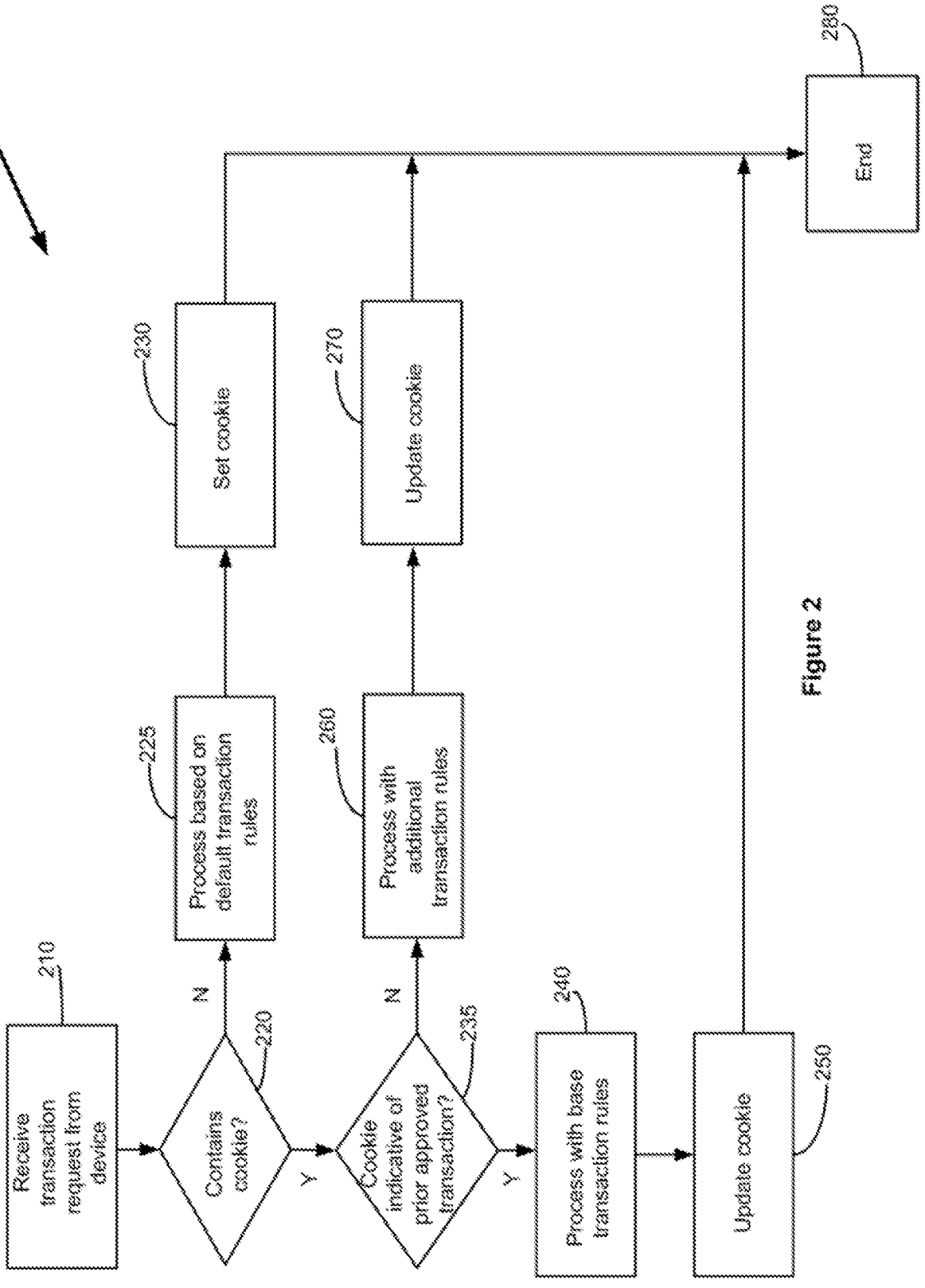
200
Receive transaction request from device
210
Contains cookie?
220
N
Y
Process based on default transaction rules
225
Set cookie
230
Cookie indicative of prior approved transaction?
235
N
Y
Process with additional transaction rules
260
Update cookie
270
Process with base transaction rules
240
Update cookie
250
End
280

Figure 2

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2014/000505

A. CLASSIFICATION OF SUBJECT MATTER

G06F 21/00 (2013.01) G06Q 30/00 (2012.01)

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

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, WPI: IPC G06F, G06Q & Keywords (cookie, browser, http, web outcome, score, threshold) and like terms.

Google Patents, Google: Similar keywords as above.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	Documents are listed in the continuation of Box C	

|X| Further documents are listed in the continuation of Box C |X| See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
1 July 2014	01 July 2014
Name and mailing address of the ISA/AU	**Authorised officer**
AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA Email address: pct@ipaustralia.gov.au	MD Reza-E Rabbi AUSTRALIAN PATENT OFFTCE (ISO 900 1 Quality Certified Service) Telephone No. 0262833141

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2010/0293094 A1 (KOLKOWITZ et al.) 18 November 2010 Abstract, para 0041, 0053, 0056, 0063, 0066-0079, 0082-0084.	1-16
X	US 7673793 B2 (GREENE et al.) 09 March 2010 Abstract, lines 5 to 10 column 7, line 1 column 8 to line 5 column 9, line 16 column 13 to line 16 column 15; figs 2, 10-12.	1-16
A	US 5963915 A (KIRSCH) 05 October 1999 Abstract.	
A	US 8019881 B2 (SANDHU et al.) 13 September 2011 Abstract.	

INTERNATIONAL SEARCH REPORT Information on patent family members	International application No. **PCT/AU2014/000505**

This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document/s Cited in Search Report		**Patent Family Member/s**	
Publication Number	**Publication Date**	**Publication Number**	**Publication Date**
US 2010/0293094 A1	18 November 2010	None	
US 7673793 B2	09 March 2010	US 7673793 B2	09 Mar 2010
		AU 2005286866 A1	30 Mar 2006
		AU 2007243609 A1	08 Nov 2007
		AU 2007243609 B2	14 Mar 2013
		CA 2580731 A1	30 Mar 2006
		CA 2650346 A1	08 Nov 2007
		EP 1810235 A2	25 Jul 2007
		EP 2011074 A1	07 Jan 2009
		IL 194863 A	31 Jul 2012
		IL 219511 A	28 Nov 2013
		JP 2009535692 A	01 Oct 2009
		JP 5090437 B2	05 Dec 2012
		JP 2008513893 A	01 May 2008
		JP 2013145591 A	25 Jul 2013
		US 2006287902 A1	21 Dec 2006
		US 7438226 B2	21 Oct 2008
		US 2006149580 A1	06 Jul 2006
		US 7497374 B2	03 Mar 2009
		US 2007038568 A1	15 Feb 2007
		US 7543740 B2	09 Jun 2009
		US 2006282285 A1	14 Dec 2006
		US 7708200 B2	04 May 2010
		US 2006064374 A1	23 Mar 2006
		US 2007061273 A1	15 Mar 2007
		US 2008010678 A1	10 Jan 2008
		WO 2006034205 A2	30 Mar 2006
		WO 2007127043 A1	08 Nov 2007
		WO 2008153851 A1	18 Dec 2008
US 5963915 A	05 October 1999	None	
US 8019881 B2	13 September 2011	US 8019881 B2	13 Sep 2011
		US 6985953 B1	10 Jan 2006
		US 2006101114 A1	11 May 2006
		US 7293098 B2	06 Nov 2007

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

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Publication Number	**Publication Date**	**Publication Number**	**Publication Date**

End of Annex