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ABSTRACT

5 Described herein are various systems and methods for managing residual
transaction amounts. For example, in some embodiments such systems and methods
are implemented to allow a consumer to direct “loose change” resulting from a cash
transaction towards an electronic account, as opposed to receiving the loose change as
physical legal tender. In some such embodiments, the loose change of a given
consumer is subsequently applied to at least partially fund one or more entries in a
gaming activity, essentially providing the consumer with an opportunity to win a prize.
10 In most cases, the loose change results from a transaction for goods and/or services
unrelated to the gaming activity.

(Figure 1)

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The following statement is a full description of this invention, including the best method of performing it known to us :

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SYSTEMS AND METHODS FOR MANAGING RESIDUAL TRANSACTION AMOUNTS

Field of the Invention

5 The present invention relates to systems and methods for managing residual transaction amounts, with various embodiments also providing hardware and software components for the implementation of such systems and methods. In some embodiments, the method or system includes the step of providing a gaming activity whereby one or more consumers to whom residual transaction amounts are attributable
10 are allocated entries, which essentially provide an opportunity to win a prize. The term “gaming” is intended to be interpreted in the broadest sense, as encompassing the fields of gambling, gaming, wagering, betting, lotteries and games or competitions of skill and/or knowledge and/or chance.

15 Background to the Invention

 The following discussion of the background art is intended to place the invention in an appropriate context and to allow the unique characteristics and advantages of it to be more fully understood. However, any discussion of the background art throughout the specification should in no way be considered as an
20 express or implied admission that such prior art is widely known or forms part of common general knowledge in the field.

 In the age of electronic banking and e-commerce, consumer tolerance for dealing with the inconveniences of currency coins is in decline. However, from a practical perspective, many common transactions (particularly those for low value
25 items) continue to result in currency coins (or low value currency notes) being returned to consumers as “loose change”. This loose change is, on a per transaction basis, typically sufficiently negligible that the perceived immediate financial value is overshadowed by the inconvenience associated with the bulky nature of the coins (or low value currency notes) themselves. If loose change is collected from a relatively
30 large number of transactions, the value inherently accumulates to a potentially significant level. However, realising that value is often a difficult task. One option is to accumulate a sizable quantity of coinage, to be periodically exchanged for currency

notes at a financial institution or a commercial coin exchange kiosk, such as those provided in the United States under the trading name "Coinstar". However, this can be a time-consuming and inconvenient task, and still requires the accumulation and transportation of potentially large volumes of bulky coinage. The same observations
5 also apply, albeit to a lesser degree, in relation to currency notes of relatively small denomination.

There is a need in the art for improved systems and methods, or at least alternative systems and methods, for managing residual transaction amounts.

10 **Summary of the Invention**

It is an object of the present invention to overcome or ameliorate one or more of the disadvantages of the prior art, or at least to provide a useful alternative.

One embodiment provides a computer implemented method for managing residual transaction amounts for a plurality of consumers, the method including the
15 steps of:

identifying a residual transaction amount for a given consumer; and

applying a predetermined proportion of the residual transaction amount as an entry fee in a gaming activity such that the consumer is allocated one or more entries in the gaming activity, wherein:

20 (i) for each entry that is identified as a winning entry, the consumer is allocated a total return amount having a value greater than the value of the entry fee exchanged for that entry; and

(ii) for each entry that is not identified as a winning entry, the consumer is refunded a value corresponding to the entry fee exchanged for that entry.

25 One embodiment provides a method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

receiving data indicative of an account identifier and a residual transaction amount;

30 querying a consumer account database to identify a consumer account corresponding to the account identifier;

crediting the identified consumer account by an amount including at least a portion of the residual transaction amount;

querying the consumer account database to determine whether or not to exchange a portion of credit in the identified consumer account for gaming value; and

5 in the case that the portion of credit is to be exchanged for gaming value, defining that portion as at least part of an entry fee in a gaming activity, wherein the entry fee is at least partially refundable irrespective of the outcome of the gaming activity.

One embodiment provides a method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

10 receiving data indicative of an entry fee, the entry fee being defined by at least a portion of a residual transaction amount for a consumer; and

exchanging the entry fee for one or more entries in a gaming activity, wherein the entry fee is at least partially refundable irrespective of the outcome of the gaming activity.

15 According to another aspect of the invention, there is provided a method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

receiving data indicative of an account identifier and a residual transaction amount;

20 querying a consumer account database to identify a consumer account corresponding to the account identifier;

crediting the identified consumer account by an amount including at least a portion of the residual transaction amount;

receiving data indicative of the outcome of a gaming activity;

25 in response to the outcome of the gaming activity, querying the consumer account database to identify one or more winning consumer accounts to which prize amounts are to be distributed.

One embodiment provides a method including the step of being responsive to the residual transaction amount for associating none or more game entries with the identified consumer account.

30 One embodiment provides a method wherein the step of associating none or more game entries with the identified consumer account includes selectively defining at least a portion of the residual transaction amount as at least part of an entry fee,

wherein the entry fee is refundable irrespective of the outcome of the gaming activity.

One embodiment provides a method including the step of crediting the identified one or more winning consumer accounts by respective prize amounts.

5 One embodiment provides a method including the step of being responsive to the residual transaction amount and one or more account preferences for associating none or more game entries with the identified consumer account.

One embodiment provides a method including the step of being responsive to the residual transaction amount and a supplementary contribution amount for associating none or more game entries with the identified consumer account.

10 One embodiment provides a method including the steps of:

commencing a gaming period;

for each consumer account, determining a number of entries in the gaming activity for association with that account;

associating with each account the respective determined number of entries.

15 One embodiment provides a method wherein, for a given consumer account, the determination of the number of entries is based on the credit level of account.

One embodiment provides a method wherein, for a given consumer account, the determination of the number of entries is based on the credit level of that account and a supplementary contribution amount associated with that account.

20 One embodiment provides a method wherein, in the case that a consumer account corresponding to the account identifier is not identifiable, the method includes the step of defining in the database a new consumer account that is identifiable on the basis of the account identifier, and identifying that new account for the purpose of the subsequent step of crediting.

25 One embodiment provides a method including the steps of:

receiving, for a given consumer, a withdrawal request indicative of an account identifier;

querying the consumer account database to identify a consumer account corresponding to the account identifier;

30 debiting the identified consumer account by an amount corresponding to the withdrawal request;

providing a signal indicative of an instruction to provide to the consumer the

amount corresponding to the withdrawal request.

One embodiment provides a method wherein the amount corresponding to the withdrawal request is equal to the credit level of the identified account at the time the withdrawal request is received.

5 One embodiment provides a method wherein the amount corresponding to the withdrawal request is less than the credit level of the identified account at the time the withdrawal request is received.

One embodiment provides a method wherein the amount corresponding to the withdrawal request is defined by or on behalf of the consumer.

10 A second aspect of the invention provides a method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

receiving data indicative of an account identifier and a residual transaction amount;

15 querying a consumer account database to identify a consumer account corresponding to the account identifier;

crediting the identified consumer account by an amount including at least a portion of the residual transaction amount;

querying the consumer account database to determine whether or not to exchange a portion of credit in the identified consumer account for gaming value;

20 in the case that the portion of credit is to be exchanged for gaming value, exchanging the credit for the gaming value.

One embodiment provides a method wherein the gaming value includes one or more entries in one or more gaming activities.

25 One embodiment provides a method wherein the gaming value includes a partial ownership of one or more entries in one or more gaming activities.

One embodiment provides a method wherein the step of querying the consumer account database to determine whether or not to exchange a portion of credit in the identified consumer account for gaming value is performed responsive to the step of crediting the identified consumer account by an amount including at least a portion of the residual transaction amount.

30 One embodiment provides a method wherein the step of querying the consumer account database to determine whether or not to exchange a portion of credit in the

identified consumer account for gaming value is performed on a periodic basis.

One embodiment provides a method including the step of being responsive to one or more account preferences for determining whether or not to exchange a portion of credit in the identified consumer account for gaming value.

5 One embodiment provides a method wherein, in the case that a consumer account corresponding to the account identifier is not identifiable, the method includes the step of defining in the database a new consumer account that is identifiable on the basis of the account identifier, and identifying that new account for the purpose of the subsequent step of crediting.

10 One embodiment provides a method including the steps of:
receiving, for a given consumer, a withdrawal request indicative of an account identifier;

querying the consumer account database to identify a consumer account corresponding to the account identifier;

15 debiting the identified consumer account by an amount corresponding to the withdrawal request;

providing a signal indicative of an instruction to provide to the consumer the amount corresponding to the withdrawal request.

20 One embodiment provides a method wherein the amount corresponding to the withdrawal request is equal to the credit level of the identified account at the time the withdrawal request is received.

One embodiment provides a method wherein the amount corresponding to the withdrawal request is less than the credit level of the identified account at the time the withdrawal request is received.

25 One embodiment provides a method wherein the amount corresponding to the withdrawal request is defined by or on behalf of the consumer.

Another aspect of the invention provides a computer-readable carrier medium carrying a set of instructions that when executed by one or more processors cause the one or more processors to carry out a method as described above.

30 Another aspect of the invention provides a system including one or more processors configured to carry out a method as described above.

Another aspect of the invention provides a system for managing residual

transaction amounts for a plurality of consumers, the system including:

an interface for receiving data indicative of an account identifier and a residual transaction amount;

5 a processor for querying a consumer account database to identify a consumer account corresponding to the account identifier;

a processor for crediting the identified consumer account by an amount including at least a portion of the residual transaction amount;

an interface receiving data indicative of the outcome of a gaming activity;

10 a processor for, in response to the outcome of the gaming activity, querying the consumer account database to identify one or more winning consumer accounts to which prize amounts are to be distributed.

Reference throughout this specification to “one embodiment”, “some embodiments” or “an embodiment” means that a particular feature, structure or characteristic described in connection with the embodiment is included in at least one
15 embodiment of the present invention. Thus, appearances of the phrases “in one embodiment”, “some embodiments” or “in an embodiment” in various places throughout this specification are not necessarily all referring to the same embodiment, but may. Furthermore, the particular features, structures or characteristics may be combined in any suitable manner, as would be apparent to one of ordinary skill in the
20 art from this disclosure, in one or more embodiments.

Similarly it should be appreciated that in the above description of exemplary
embodiments of the invention, various features of the invention are sometimes grouped
together in a single embodiment, figure, or description thereof for the purpose of
streamlining the disclosure and aiding in the understanding of one or more of the
25 various inventive aspects. This method of disclosure, however, is not to be interpreted
as reflecting an intention that the claimed invention requires more features than are
expressly recited in each claim. Rather, as the following claims reflect, inventive
aspects lie in less than all features of a single foregoing disclosed embodiment. Thus,
the claims following the Detailed Description are hereby expressly incorporated into
30 this Detailed Description, with each claim standing on its own as a separate
embodiment of this invention.

Furthermore, while some embodiments described herein include some but not

other features included in other embodiments, combinations of features of different embodiments are meant to be within the scope of the invention, and form different embodiments, as would be understood by those in the art. For example, in the following claims, any of the claimed embodiments can be used in any combination.

5 Furthermore, some of the embodiments are described herein as a method or combination of elements of a method that can be implemented by a processor of a computer system or by other means of carrying out the function. Thus, a processor with the necessary instructions for carrying out such a method or element of a method forms a means for carrying out the method or element of a method. Furthermore, an
10 element described herein of an apparatus embodiment is an example of a means for carrying out the function performed by the element for the purpose of carrying out the invention.

 In the description provided herein, numerous specific details are set forth. However, it is understood that embodiments of the invention may be practiced without
15 these specific details. In other instances, well-known methods, structures and techniques have not been shown in detail in order not to obscure an understanding of this description.

 As used herein, unless otherwise specified the use of the ordinal adjectives "first", "second", "third", etc., to describe a common object, merely indicate that
20 different instances of like objects are being referred to, and are not intended to imply that the objects so described must be in a given sequence, either temporally, spatially, in ranking, or in any other manner.

 In the claims below and the description herein, any one of the terms "comprising", "comprised of", or "which comprises" is an open term that means
25 including at least the elements/features that follow, but not excluding others. Thus, the term "comprising", when used in the claims, should not be interpreted as being limitative to the means or elements or steps listed thereafter. For example, the scope of the expression a device comprising A and B should not be limited to devices consisting only of elements A and B. Any one of the terms "including", "which includes" or
30 "that includes" as used herein is also an open term that also means including at least the elements/features that follow the term, but not excluding others. Thus, "including" is synonymous with and means the same as "comprising".

Similarly, the term "coupled", when used herein, should not be interpreted as being limitative to direct connections only. The terms "coupled" and "connected," along with their derivatives, may be used. The scope of the expression a "device A coupled to a device B" should not be limited to devices or systems wherein an output of device A is directly connected to an input of device B. It means that there exists a path between an output of A and an input of B which may be a path including other devices or means. "Coupled" may mean that two or more elements are either in direct physical or electrical contact, or that two or more elements are not in direct contact with each other but yet still co-operate or interact with each other.

Brief Description of the Drawings

Preferred embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

FIG. 1 illustrates a system for managing residual transaction amounts according to one embodiment;

FIG. 2 illustrates a system for managing residual transaction amounts according to one embodiment;

FIG. 3A illustrates a method according to one embodiment;

FIG. 3B illustrates a method according to one embodiment;

FIG. 3C illustrates a method according to one embodiment;

FIG. 4A illustrates a method according to one embodiment;

FIG. 4B illustrates a method according to one embodiment;

FIG. 5A illustrates a method according to one embodiment; and

FIG. 5B illustrates a method according to one embodiment.

Detailed Description of Preferred Embodiments

Described herein are various systems and methods for managing residual transaction amounts. In some embodiments, such systems and methods are implemented to allow a consumer to direct "loose change" resulting from a cash transaction towards an electronic account, as opposed to receiving the loose change as physical legal tender. In some such embodiments, the loose change of a given consumer is subsequently applied to at least partially fund one or more entries in a

gaming activity, essentially providing the consumer with an opportunity to win a prize. In most cases, the loose change results from a transaction for goods and/or services unrelated to the gaming activity itself, and unrelated to gaming generally.

5 One embodiment provides a method for managing residual transaction amounts in which data is received, this data being indicative of an account identifier and a residual transaction amount. Subsequently, the method includes the step of querying a consumer account database to identify a consumer account corresponding to the account identifier, and crediting the identified consumer account by an amount including at least a portion of the residual transaction amount, on the basis of
10 predetermined credit allocation criteria. The method, at least in some embodiments, also includes receiving data indicative of the outcome of a gaming activity and, in response to the outcome of the gaming activity, querying the consumer account database to identify one or more winning consumer accounts to which prize amounts are to be distributed. In some embodiments, the method includes querying the
15 consumer account database to identify one or more consumer accounts for which some or all of the respective credit is to be exchanged for one or more entries in a gaming activity (or in some cases one or more partial entries in a gaming activity), and subsequently exchanging that credit for the one or more entries (or partial entries).

20 FIG. 1 illustrates a system for managing residual transaction amounts, in the form of an administration system 100. In overview, system 100 is configured to manage residual transaction amounts stemming from transactions between consumers and suppliers, such as consumer 101 and supplier 102 illustrated in FIG. 1.

25 At a broad level, in a transaction between a consumer and a supplier, the consumer exchanges a "transaction settlement amount" for predefined goods or services. Essentially, this "transaction settlement amount" corresponds to the specified or agreed price of the relevant goods or services. However, in practice, the consumer often provides to the supplier a "payment amount" which is greater than the
30 "transaction settlement amount", the difference between the "payment amount" and the "transaction settlement amount" defining a "change amount". The supplier reimburses the consumer for the "change amount". Conventionally, the supplier provides this change amount in cash (i.e. in the form of coins, notes or a combination of both).

In the present context, the “change amount” is considered to comprise two components (either of which might be zero in certain circumstances) – a “residual transaction amount”, and another component. This other component, for the present purposes, is referred to as a “cash return amount”. The general notion, elaborated on below, is that the process of reimbursing the consumer for the “change amount” includes directly providing to the consumer a currency amount corresponding to the “cash return amount” (assuming this to be non-zero), and arranging for the “residual transaction amount” to be managed on behalf of the consumer (again, assuming this to be non-zero).

Although the precise definition of “residual transaction amount” varies between embodiments, as further enunciated below, for some implementations the general concept is for it to be defined by the “loose change” of a transaction. The term “loose change” essentially describes an amount of currency, in coin and/or note form, for which the perceived inconvenience of physical carriage is perhaps greater than the immediate perceived value. It is appreciated that these are subjective considerations, with perceptions of inconvenience and value varying from person to person. Ultimately, determining an appropriate definition for the term “residual transaction amount” is a matter to be determined during implementation. Some general guidelines are provided below.

At a fundamental level, the following applies:

$$0 \leq \text{RESIDUAL TRANSACTION AMOUNT} \leq \text{CHANGE AMOUNT}$$

In some cases the “residual transaction amount” has a value equal to the “change amount”, whereas in other embodiments it has a value of less than 100% of the “change amount”, or even zero. In some embodiments the “residual transaction amount” is determined according to one of the following formulae:

$$\text{RESIDUAL TRANSACTION AMOUNT} = \text{CHANGE AMOUNT} - \text{NEAREST LOWER WHOLE DOLLAR AMOUNT}$$

OR

$$\text{RESIDUAL TRANSACTION AMOUNT} = \text{CHANGE AMOUNT} - \text{NEAREST LOWER CURRENCY NOTE AMOUNT}$$

It will be appreciated that, in other embodiments, other formulae may be used. In some embodiments only currency notes of over a predetermined value are considered for determinations using the latter formula (for example, in the context of US currency, this might be the “nearest lower currency note amount of \$10 or greater).

In some embodiments the consumer is provided with an option to designate a particular residual transaction amount between zero and the change amount. That is, to consider the extremities, in some cases the consumer can select a zero value for the residual transaction amount in which case the total value of the change amount would simply be returned to the consumer as cash in the usual way, and in some cases the consumer can select the entire change amount to define the residual transaction amount, in which case the total value of the change amount would be allocated for management as “loose change” according to an embodiment of the present invention.

Although a useful feature of certain embodiments is the ability to reduce the need for consumers to physically carry currency coins or low-value currency notes (specifically by defining a residual transaction amount as a “loose change” component of the change amount), it is envisaged that in various cases the residual transaction amount might be either greater than or less than the next lowest currency note amount available as change for a given transaction. That is, although various embodiments are described herein by reference to the concept of “loose change”, it should be appreciated that this term describes a subset of what is defined by the term “residual transaction amount”, and it follows that the scope of the present disclosure should by no means be limited to the concept of “loose change”.

There are particular advantages in defining the residual transaction amount by reference to the nature of legal tender in a particular jurisdiction. For example, in circumstances where legal tender takes both note and coin form, such as the United States and Australia, the residual transaction amount is able to be defined by the portion of the residual transaction amount that is typically provided by way of currency coins and/or low-value currency notes. For instance, in such situations, the residual transaction amount is the change amount less the nearest lower whole dollar amount, and is essentially “loose change” by one definition. However, in some cases, low-value currency notes (such as US \$1 notes) are also considered to be “loose change”. Conversely, in some cases, high-value currency coins (such as Australian \$1 and \$2 coins) may not be considered to be “loose change”.

By way of example, in jurisdictions where one or more units of coin currency have a significant value, such as Australia where \$1 and \$2 currency coins are used and the lowest currency note value is \$5, whether or not such coins are included in the

residual transaction amount (i.e. considered to be loose change) varies between embodiments. For example, in one embodiment based on the Australian situation, the residual transaction amount is the change amount less the nearest lower whole dollar amount (\$1 and \$2 coins are considered to be loose change), and in another
5 embodiment, again based on the Australian situation, the residual transaction amount is deemed to be the change amount less the nearest \$5 integral multiple amount (\$1 and \$2 coins are not considered to be loose change). In practice, determinations for a particular currency system are able to be made pursuant to an arbitrary value-based determination.

10 In some jurisdictions, the lowest denomination of physical currency has a value greater than the minimum theoretical single unit of currency. This leads to a situation whereby, at a practical level, rounding is often applied to a change amount. For example, in Australia, the lowest denomination of physical currency is \$0.05. If a consumer purchases an item for \$0.98 by way of a \$1 cash payment amount, the
15 change amount is, in theory, \$0.02. However, because the lowest denomination of physical currency is a five-cent coin, this change amount is, in practice, rounded down to \$0.00 (i.e. no change is provided). Alternatively, it might be considered that the price of that item is rounded up to \$1.00 (again resulting in no change). On the other hand, by some embodiments of the present invention, a residual transaction amount of
20 \$0.02 is nevertheless defined. As will be appreciated from discussions below, the consumer therefore does in fact receive \$0.02 as change for the transaction (this is credited to an electronic account), in spite of the fact that in absence of system 100 no physical change amount would have been received.

25 In some embodiments various rounding procedures are implemented, including approaches whereby all change amounts are rounded down to the nearest set level (such as to the nearest \$0.05, with \$0.96 to \$0.99 being rounded to \$0.95), rounded up to the nearest set level (such as to the nearest \$0.05, with \$0.96 to \$0.99 being rounded to \$1.00), or to the closest set level (such as to the nearest \$0.05, with \$0.93 to \$0.97 being rounded to \$0.95).

30 As illustrated in FIG. 1, data indicative of the residual transaction amount is transmitted, along with data indicative of the consumer, to system 100. This data is used to update a consumer account database 103 under the control of a central server

105. In this way, database 103 maintains data indicative of the amount of credit on behalf of the consumer, and on behalf of a plurality of other consumers. The actual residual transaction amount is provided, for example by way of electronic credit transfer, to a residual transaction amount account 106. In some cases account 106 is
5 defined by a plurality of distributed accounts.

System 100 is configured to provide instructions for allowing the transfer of credit from account 106 to predefined locations. In some embodiments, the predefined locations include:

- A bank account nominated by consumer 101 (i.e. credit is transferred
10 directly to the consumer).
- A bank account nominated by supplier 102 (i.e. credit is indirectly transferred to the consumer via the supplier).

In the case of the latter, in some circumstances credit is provided to the supplier at a time following distribution of the credit to the consumer by the supplier in cash
15 form or as in-store credit (i.e. reimburse the supplier for monies already distributed to the consumer).

In some embodiments, the intermediate account 106 may be omitted, and the respective credits may be transferred directly to individual consumer accounts, for
20 example

In the presently considered embodiments, server 100 provides consumers with an opportunity to participate in one or more gaming activities on the basis of their respective residual transaction amounts. In some embodiments such participation occurs on the basis of a predefined default situation; whilst in other embodiments such participation is subject to a positive consumer selection.

25 In some embodiments, residual transaction amounts are exchanged for entries in a gaming activity, such as a lottery. Pursuant to the outcome of this gaming activity, winning entries are identified, and prizes (which may or may not be financial in nature) are distributed (or marked for distribution) among those consumers to whom winning entries were allocated.

30 In some cases there is a minimum spend level in a gaming activity (for example a minimum entry cost of \$1), this minimum spend level being greater than some or all of the residual transaction amounts. In some cases, a consumer is allocated an entry

only when the cumulative total of residual transaction amounts maintained on behalf of that consumer accrues to the minimum spend level (for example this might occur following a plurality of transactions). In other embodiments, consumers are syndicated together such that a single entry is essentially purchased by a plurality of consumers, each "owning" a respective proportion of that entry corresponding to their relative share in the cost. In such cases, in the event of a winning entry, the prize would be shared among the associated entrants in the same respective proportions, or optionally on some other predetermined basis.

In some embodiments, the gaming activity is a traditional gaming activity by which the entry fees (i.e. the portion of individual or cumulative residual transaction amounts exchanged for entries) are placed fully at risk. However, in other embodiments, as described further below, entry fees are refundable.

The terms "supplier" and "consumer" should be afforded broad interpretations in the context of the present invention. A supplier is any party that provides goods and/or services to another party in exchange for a transaction settlement amount (i.e. a supplier receives payment for goods and/or services). Likewise, a consumer is any party that receives goods and/or services from another party in exchange for a transaction settlement amount (i.e. a consumer pays for goods and/or services). Suppliers are predominately described herein by reference to the example of retailers; however it should be appreciated that in all circumstances where the term "retailer" is used, the broader term "supplier" should be equally applicable unless the context clearly dictates otherwise.

System Overview

Provided below is a description of an exemplary hardware configuration for implementing some embodiments of the present invention. It should be appreciated that this is set out for the purposes of example only, and should not be read as necessarily limiting the scope of the present disclosure.

FIG. 2 illustrates a system 200 for managing residual transaction amounts according to one embodiment. As illustrated, the system includes a central server 201, which is configured to communicate with a plurality of client terminals 202 over a communications network 204. In the illustrated example, network 204 is provided by an internet-based interface 205. However, it will be appreciated that the manner by

which the central server communicates with client terminals varies between embodiments. For example, various wired and wireless communications networks are used in other embodiments. In some embodiments combinations are present, such as a combination of cellular networks (for example where client terminals include cell phones) and the Internet (for example where client terminals include POS terminals and/or personal computers).

It should be appreciated that server 201 is illustrated as a single discrete component for the purposes of illustration only, and in other embodiments server 201 includes multiple discrete (and in some cases distributed) components. In the illustrated example, server 201 includes a processor 211 coupled to a memory module 212 that maintains software instructions 213 for execution on processor 211. These software instructions allow server 201 to perform various methods and provide various functionalities discussed herein. Also coupled to processor 211 is a communications interface 214 for allowing communication between server 201 and client terminals 202. Server 201 operates in conjunction with an account holder database 215, which might also include distributed components. Database 215 maintains data indicative of consumer accounts. In overview, each consumer that makes use of system 200 has an account defined in database 215. This account maintains information concerning the account, such as a level of credit in the account, user preferences associated with the account, and/or contact information for the consumer.

The consumer accounts do not, in the present embodiments, actually maintain any physical monetary credit. Rather, they are “virtual accounts”, optionally configured to include data indicative of a value in credit respectively attributable to the relevant consumers. Actual monies are maintained in one or more physical accounts, such as interest bearing accounts, and are optionally subjected to various investment procedures to derive investment income.

As illustrated, client terminals 202 include retailer client terminals 206 and account holder client terminals 207, although the latter are only present in select embodiments, as discussed further below. An exemplary client terminal 210 includes a processor 221 coupled to a memory module 222 that maintains software instructions 223 for execution on processor 221. These software instructions allow terminal 210 to perform various methods and provide various functionalities discussed herein. In

some embodiments these software instructions are implemented in conjunction with software instructions 213 for this purpose (such as where a "thin client" or browser based approach is implemented). Also coupled to processor 221 is a communications interface 224 (such as an Ethernet interface, GSM/other cellular communications module, or other communications interface) for allowing communication between server 201 and client terminals 202.

Retailer terminals 206 include any one or more of point of sale (POS) terminals, discrete hardware devices coupled to POS terminals, or the combination of such discrete hardware devices coupled with their respective POS terminals. The underlying concept is that a retailer terminal 206 is configured to receive data indicative of a residual transaction amount (such as a residual transaction amount itself or other data from which a residual transaction amount is able to be determined subject to further processing).

Unless specifically stated otherwise, it should be appreciated that throughout the specification terms such as "processing," "computing," "calculating," "determining", analyzing" or the like, in some embodiments refer to the action and/or processes of a computer or computing system, or similar electronic computing device, that manipulate and/or transform data represented as physical, such as electronic, quantities into other data similarly represented as physical quantities.

In a similar manner, the term "processor" may refer to any device or portion of a device that processes electronic data, e.g., from registers and/or memory to transform that electronic data into other electronic data that, e.g., may be stored in registers and/or memory. A "computer" or a "computing machine" or a "computing platform" may include one or more processors.

The methodologies described herein are, in some embodiments, performable by one or more processors that accept computer-readable (also called machine-readable) code containing a set of instructions that, when executed by one or more of the processors, carry out at least one of the methods described herein, or a variation on at least one of the methods described herein. Any processor capable of executing a set of instructions (sequential or otherwise) that specify actions to be taken should be included. Thus, one example is a typical processing system that includes one or more processors. Each processor may include one or more of a CPU, a graphics processing

unit, and a programmable DSP unit. The processing system further may include a memory subsystem including main RAM and/or a static RAM, and/or ROM. A bus subsystem may be included for communicating between the components. The processing system further may be a distributed processing system with processors
5 coupled by a network. If the processing system requires a display, such a display may be included, e.g., a liquid crystal display (LCD) or a cathode ray tube (CRT) display. If manual data entry is required, the processing system also includes an input device such as one or more of an alphanumeric input unit such as a keyboard, a pointing control device such as a mouse, and so forth. The term memory unit as used herein, if
10 clear from the context and unless explicitly stated otherwise, also encompasses a storage system such as a disk drive unit. The processing system in some configurations may include a sound output device, and a network interface device. The memory subsystem thus includes a computer-readable carrier medium that carries computer-readable code (e.g., software) including a set of instructions to cause
15 performing, when executed by one or more processors, one of more of the methods described herein. Note that when the method includes several elements, e.g., several steps, no ordering of such elements is implied, unless specifically stated. The software may reside in the hard disk, or may also reside, completely or at least partially, within the RAM and/or within the processor during execution thereof by the computer
20 system. Thus, the memory and the processor also constitute computer-readable carrier medium carrying computer-readable code.

Furthermore, a computer-readable carrier medium may form, or be includes in a computer program product.

In alternative embodiments, the one or more processors operate as a standalone
25 device or may be connected, e.g., networked to other processor(s), in a networked deployment, the one or more processors may operate in the capacity of a server or a user machine in server-user network environment, or as a peer machine in a peer-to-peer or distributed network environment. The one or more processors may form a personal computer (PC), a tablet PC, a set-top box (STB), a Personal Digital Assistant
30 (PDA), a cellular telephone, a web appliance, a network router, switch or bridge, or any machine capable of executing a set of instructions (sequential or otherwise) that specify actions to be taken by that machine.

Note that while some diagrams only show a single processor and a single memory that carries the computer-readable code, those in the art will understand that many of the components described above are included, but not explicitly shown or described in order not to obscure the inventive aspect. For example, while only a single machine is illustrated, the term "machine" or "device" shall also be taken to include any collection of machines that individually or jointly execute a set (or multiple sets) of instructions to perform any one or more of the methodologies discussed herein.

At least one embodiment of each of the methods described herein is in the form of a computer-readable carrier medium carrying a set of instructions (such as a computer program) that are for execution on one or more processors, (such as one or more processors that are part of an information system). Thus, as will be appreciated by those skilled in the art, embodiments of the present invention may be embodied as a method, an apparatus such as a special purpose apparatus, an apparatus such as a data processing system, or a computer-readable carrier medium (such as a computer program product). The computer-readable carrier medium carries computer readable code including a set of instructions that when executed on one or more processors cause the processor or processors to implement a method. Accordingly, aspects of the present invention may take the form of a method, an entirely hardware embodiment, an entirely software embodiment or an embodiment combining software and hardware aspects. Furthermore, the present invention may take the form of carrier medium (such as a computer program product on a computer-readable storage medium) carrying computer-readable program code embodied in the medium.

The software may further be transmitted or received over a network via a network interface device or other communications interface. While the carrier medium is shown in an exemplary embodiment to be a single medium, the term "carrier medium" should be taken to include a single medium or multiple media (such as a centralized or distributed database, and/or associated caches and servers) that store the one or more sets of instructions. The term "carrier medium" shall also be taken to include any medium that is capable of storing, encoding or carrying a set of instructions for execution by one or more of the processors and that cause the one or more processors to perform any one or more of the methodologies of the present

invention. A carrier medium may take many forms, including but not limited to, non-volatile media, volatile media, and transmission media. Non-volatile media includes, for example, optical, magnetic disks, and magneto-optical disks. Volatile media includes dynamic memory, such as main memory. Transmission media includes
5 coaxial cables, copper wire and fiber optics, including the wires that comprise a bus subsystem. Transmission media also may also take the form of acoustic or light waves, such as those generated during radio wave and infrared data communications. For example, the term "carrier medium" shall accordingly be taken to included, but not be limited to, solid-state memories, a computer product embodied in optical and
10 magnetic media, a medium bearing a propagated signal detectable by at least one processor of one or more processors and representing a set of instructions that when executed implement a method, a carrier wave bearing a propagated signal detectable by at least one processor of the one or more processors and representing the set of instructions a propagated signal and representing the set of instructions, and a
15 transmission medium in a network bearing a propagated signal detectable by at least one processor of the one or more processors and representing the set of instructions.

It will be understood that the steps of methods discussed are performed in one embodiment by an appropriate processor (or processors) of a processing system (such as a computer) executing instructions (computer-readable code) stored in storage. It
20 will also be understood that the invention is not limited to any particular implementation or programming technique and that the invention may be implemented using any appropriate techniques for implementing the functionality described herein. The invention is not limited to any particular programming language or operating system.

25 *Retailer Terminal Procedure*

FIG. 3A illustrates an exemplary method 300 performable by a retailer terminal 206 (for example based on software instructions 223 optionally in combination with software instructions 213). Steps 301 and 302 respectively include receiving input data indicative of an account identifier and a residual transaction amount. It will be
30 appreciated that these steps might be performed in any order, or substantially simultaneously.

In the present embodiment, a consumer is identifiable on the basis of an account identifier. This account identifier may be, for example, a numeric, alphanumeric, or alphabetic string that identifies a unique account in database 215.

5 Three examples of how account identifiers are provided to consumers are considered below:

- 10 • In some embodiments, one or more of the consumers are provided with a respective machine readable token or passcode which is indicative of an account identifier for the relevant consumer, or from which an account identifier for the relevant consumer is able to be derived. In some such embodiments, consumers undergo a registration procedure for the creation of their accounts. The term “machine readable” describes the likes of tokens including magnetic strips, printed/embossed material, RFID tags, barcodes, smartcard information, and so on. Machine readable tokens are read by appropriate hardware
15 (for example, by “swiping” a card having a magnetic strip), and the machine readable information processed to derive an account identifier.
- 20 • In some embodiments one or more of the consumers have respective pre-existing machine readable tokens or passcodes. For example, this token might be a pre-existing credit card, debit card, loyalty card, picture ID, driver’s licence, passport, healthcare card (such as “Medicare” in Australia), social security card or the like – substantially any machine readable token capable of uniquely identifying a particular consumer may be used. In some such embodiments, consumers undergo a registration procedure for the creation of their accounts.
25 However, in other embodiments an account is inherently defined for a consumer upon the reading of a token or acceptance of a passcode that has previously not been presented in the context of system 200.
- 30 • In some embodiments, fingerprint scanners, iris or retina scanners, voice analysis software or similar technologies may be used to generate or verify account identifiers based on data indicative of unique physical characteristics of the consumer.

It will be appreciated that other approaches are implemented in other embodiments.

Although each account identifier identifies only a single account, in some embodiments multiple account identifiers identify a single account. For example, in
5 some embodiments a single consumer account is identified upon the presentation of either a credit card, passcode, or other loyalty card attributable to a given consumer. For instance, a consumer presents a credit card for the purposes of providing an account identifier for one transaction, and the same consumer presents a loyalty card for the purposes of providing an account identifier for another transaction. Assume,
10 for the sake of example, that each of these transactions results in a residual transaction amount. These amounts would be "managed" as described herein by reference to different account identifiers stemming from the credit card and loyalty card respectively. However, the consumer might wish for both of these amounts to go to a single consumer account, essentially requiring an account that has multiple account
15 identifiers. In some cases this is implemented by initially creating multiple consumer accounts, and subsequently allowing a consumer to whom these accounts are commonly attributable to collate the accounts, for example by way of options provided in a web-based interface accessible via an account holder terminal 207.

Although some embodiments described herein are perhaps concerned to some
20 extent with situations where residual transaction management occurs across a potentially large number of venues, in some embodiments residual transaction is limited to a predetermined group of venues (for example a single chain, a group of subscribing participants, or venues in a common mall or geographical area) or even to a single venue. It will be appreciated that such issues generally hinge on commercial
25 factors.

Step 304 includes providing a signal indicative of the account identifier and residual transaction amount to the central server. In response, at least in some
embodiments, the central server performs a step of crediting the identified consumer account by an amount including at least a portion of the residual transaction amount.
30 In some embodiments this is the whole residual transaction amount. In some embodiments this is greater than the residual transaction amount, for example where a consumer is allocated a supplementary contribution amount (resulting, for example,

from participation in distribution or collection marketing at the point of sale). In some embodiments this is less than the whole residual transaction amount, for example where an operator of system 200 deducts a service fee or commission amount (which may assist in covering administration overheads).

5 The manner by which a consumer account is “credited” varies between embodiments. In some cases a credit level attributable to a given account is maintained solely in a relevant record in database 215. However, in other
10 embodiments this credit level is additionally or alternatively maintained on a machine readable/writable token carried by the consumer, such as a smartcard or rewritable RFID tag. For example, in one embodiment consumers’ respective smartcards are the primary source of credit information, and back-end information in database 215 is used primarily as a cross-check or back-up against fraud, data corruption, card loss and the like. In another embodiment the credit is solely stored on a smartcard or the like.

15 Step 305 includes transferring, for example by electronic credit transfer, an amount in credit equal to the residual transaction amount to a predefined location, such as an interest bearing account with a financial institution. It should be appreciated that this step of transferring need not include performing a physical fund transfer process, and might simply involve providing a signal for initiating such a process.

20 Although the example of FIG. 3A deals with a situation where credit transfer occurs after each transaction, in other embodiments credit transfer occurs less frequently. For example, credit transfer occurs only at the end of a predefined period, as method 310 of FIG. 3B, and step 305 includes transferring an amount in credit equal to the sum of the residual transaction amounts for the period.

25 Both FIG. 3A and FIG. 3B deal with a situation where there is a predefined period, which is often defined as a single business day or 24-hour period, or optionally a longer or shorter period. A report is generated at the end of this period at step 306 to allow reconciliation of monies that have been retained by a retailer as cash with credit that has been electronically transferred as residual transaction amounts. At a practical level, at the end of a given period, a retailer should have an amount in cash that
30 exceeds the collective value of transaction settlement amounts for that period by the value of electronic credit transfers at step 305 for that period (having accounted for any cash withdrawals from electronic credit transfers, for example by EFTPOS). It will be

appreciated that such an approach facilitates a relatively straightforward reconciliation process.

In some embodiments, retailer terminals are not only configured to allow the application of credits to consumer accounts, but also to allow consumers to make
5 withdrawals from those accounts. An example of such a procedure is provided by method 320 of FIG. 3C. Step 321 includes receiving a withdrawal request indicative of an account identifier. A signal indicative of this account identifier is provided to the central server at 322 such that a withdrawal amount can be verified. In some
10 embodiments the withdrawal amount is equal to the total amount in credit available in the consumer account for that consumer, as indicated by database 215. In other embodiments the consumer nominates a proposed withdrawal amount, and the verification process ensures that the nominated amount is less than or equal to the total amount in credit available in the consumer account for that consumer, as indicated by
15 database 215. Data indicative of the verified withdrawal amount is received at step 323, and this amount is subsequently provided to the consumer as cash or as credit against goods and or services (in some embodiments only one of these options is available). In some embodiments the amount is directly or indirectly applied to a gaming machine, for example to provide the relevant consumer with gaming credits at a poker machine/slot machine. As in the examples of FIG. 3A and FIG. 3B, method
20 320 has a reporting period to allow for reconciliation. An electronic credit transfer is made by the central server to the relevant retailer either corresponding to each withdrawal request or corresponding to each period such that the retailer is reimbursed for withdrawal amounts paid to consumers.

In some embodiments, consumers are additionally permitted to make
25 supplementary deposits, this being implemented in much the same manner as withdrawals, albeit with the direction of electronic credit transfers reversed. In some embodiments, a supplementary deposit may be applied at the time of a purchase transaction, to increase the amount credited to the consumer over and above the residual transaction amount. In some embodiments, a supplementary deposit may be
30 made independently of any specific purchase transaction. In various embodiments, deposits can be made at retailers, via electronic kiosks and banking terminals, or over the Internet. In one embodiment, a consumer provides a collection of coins to an

electronic kiosk, which counts the coins and credits the consumer's account accordingly.

Carriage of Gaming Activity

5 In some embodiments, system 200 is configured to provide consumers with access to gaming. For example, in some cases this is internalized gaming whereby system 200 wholly or partially provides a gaming activity, wherein the players include a subset or all of those consumers for whom a consumer account is defined in database 215. In other cases, this is externalized gaming, whereby credit in consumer accounts is exchanged for gaming value in relation to a gaming activity provided wholly by an
10 external party. That is, in the case of externalized gaming, system 200 has no involvement beyond the allocation of entries, or in some cases beyond providing instructions for the allocation of entries.

At a very general level, a gaming activity occurs as follows: (i) players are allocated entries in a gaming activity in exchange for respective entry fees, (ii) one or
15 more winning entries are identified on the basis of an event outcome, and (iii) prizes are distributed to the or each player to whom a winning entry or entries were allocated. In the case of internalized gaming, system 200 is responsible for at least (i) and (iii), although the actual event outcome might be determined externally. For example, in some cases system 200 leverages an existing lottery system, and yet provides
20 "internalised gaming" in the sense that it is responsible for the distribution of prizes.

In one example of externalized gaming, system 200 is responsible for providing instructions to a gaming service provider (such as a lottery agency) to allocate entries to certain consumers, and additionally responsible for providing entry fees corresponding to these instructions (i.e. credit is exchanged for gaming value). The
25 lottery service provider is then responsible for determining winners and distributing prizes. In this sense, system 200 queries the consumer account database to determine whether or not to exchange a portion of credit in a given consumer account for gaming value and, in the case that the portion of credit is to be exchanged for gaming value, provides a corresponding instruction to the lottery service provider.

30 For the purposes of discussion below, there is a general focus on internalized gaming. However, it should be appreciated at all times that other embodiments deal with externalized gaming.

In some embodiments these prizes are awarded by directly crediting the relevant consumer accounts, however in other embodiments the prizes are awarded without using consumer accounts, for example by mailing cheques or vouchers to the relevant consumers.

5 In the context of the present disclosure, it is assumed that a gaming activity is an activity where multiple players provide respective entry fees, in some of the present embodiments these entry fees being in whole or in part provided by way of residual transaction amounts. In exchange for the entry fees, the players are, subject to participation selections, respectively allocated one or more entries. The term "player" 10 as used herein refers to a provider of an entry fee, typically being a consumer. The term should be construed broadly to include both human players, non-human players, constructs or syndicates defined by a group of two or more human and/or non human players (such as a collaboration between human players), and other legal entities (such as corporations or trusts). In some cases, the player is identified in a computing 15 system by a unique identifier, which might include a purpose-defined identifier, identifier based on personal information, email address, cellular telephone number, or the like.

FIG. 4A illustrates a method 400 performable at central server 201 for allowing the allocation of entries to consumers. In some embodiments this method or a 20 variation thereof is performed in whole or in part at the retailer terminal as an alternative, for example where that terminal has no active connection to the central server and operates in an offline mode.

Step 401 includes receiving from a retailer terminal data indicative of an account identifier and a credit amount. The received account identifier is validated at 25 step 402 to determine whether it identifies a consumer account in database 215, and to identify that account. In the event that such an account cannot be identified, a new account is optionally defined at step 403, which may involve the acquisition of supplementary mandatory data. The identified or newly defined account is credited by the credit amount at step 404.

30 Step 405 includes querying gaming settings for the credited account. These gaming settings essentially determine whether and how entries are to be allocated to a particular consumer. Initially, default settings are implemented for each account,

which might or might not provide for the allocation of entries. In some embodiments a consumer is able to modify the gaming settings for his/her account, for example by way of a web or other interface accessible by way of a retailer terminal or account holder terminal. In the case of the latter, in some embodiments consumers use substantially any Internet enabled device to access a website wherein, having provided their account identifier and optionally additional identification verification information, they are able to manage various settings and options for their accounts, including the gaming settings. Several examples of gaming settings are considered below:

- 10 • No participation. No entries are allocated.
- Full participation in traditional gaming. For each gaming activity, the credit available in each consumer account is exchanged for the maximum available number of traditional gaming entries. In some cases this involves syndication, as discussed further below.
- 15 • Partial participation in traditional gaming. In this case, it might be that for each gaming activity, a proportion of the credit available in each consumer account is exchanged for traditional gaming entries. Again, this might involve syndication.
- Full participation in risk-free gaming. Risk-free gaming essentially involves refundable entry fees and is discussed in more detail below.
- 20 • Partial participation in risk-free gaming.
- Participation in partial-risk gaming. Partial-risk gaming is essentially a hybrid of risk-free and traditional gaming, and is also discussed in more detail below.

25

Decision 406 includes determining whether or not to allocate entries on the basis of the credit amount and gaming settings. Subject to this decision, entries are allocated at step 407.

30

Whilst the example of FIG. 4A deals with a situation where entries are allocated at the time of crediting a particular account, in other embodiments entries are allocated periodically subject to a gaming period, as shown by method 420 of FIG. 4B. In this method, a gaming entry allocation period starts at step 421. In overview, all

entries for a particular instance of a gaming activity (defined, for example, by a single prize determination event) are allocated during this period. This includes, at step 422, querying an account database to determine, for each account, the level of credit in that account and gaming settings in place for that account. Step 423 includes for each
5 account, allocating none or more entries based on the applicable level of credit and gaming settings. The gaming entry allocation period ends at 424.

The process of allocation generally includes allocating none or more entry identifiers to the consumers, for example by updating the relevant consumer accounts to include such entry identifiers. In some cases there is also a physically manifested
10 allocation whereby the consumer is provided with a receipt describing the entries.

FIG. 5A illustrates an exemplary method 500 for awarding prizes. A prize determination process commences at step 501. Step 502 includes receiving input indicative of the outcome of a gaming activity, for example from a coupled system or related software application that is responsible for identifying winning entries or
15 outcomes. This allows a winning entry or winning entries to be identified at step 503. Step 504 includes determining a prize amount for the/each winning entry. Step 505 includes identifying a consumer account associated with the/each winning entry, for example by querying database 215. Step 506 includes providing the appropriate prize amounts to the relevant consumers. This, in some cases, includes crediting those
20 consumers' accounts by the appropriate prize amounts. However, in other cases the prizes are provided by other means, such as by mailing cheques/other vouchers, or by providing cash or a voucher (which might be redeemable for specified goods/services only) to the consumer at a retail venue the next time that consumer's account identifier is received. In some cases prizes are monetary in nature, whilst in other cases they
25 include goods and/or services.

FIG. 5B illustrates another exemplary method 510 for awarding prizes, this including additional steps 511 and 512 relating to syndicated entries. Syndication is discussed in more detail below.

The regularity of prize determination varies between embodiments, with the
30 possibility of daily, weekly, monthly or other periodic draws. In some cases there are multiple tiers of draw (such as major and minor) which operate on respective determination schedules.

In the context of the present disclosure, there is discussion of players being “allocated” entries and disclosure of players being “provided” entries. The terms “allocated” and “provided” are regarded as synonymous in this regard. Furthermore, neither of these terms should imply a requirement that a player actually physically receives any entries (although, equally, they may do so), only that the entries are notionally allocated to that player.

Although players are considered to provide respective entry fees, it will be appreciated that in some instances a single player provides multiple entry fees on multiple occasions.

As used herein, the terms “gaming” and “gaming activity” should be construed broadly so as to encompass any form of gambling, gaming, or wagering, including but not limited to:

- Lotteries and lottery type games. In the context of the Australian market, particular examples include “Lotto”, “Oz Lotto”, “Powerball”, “Art Union Lotteries”, and the like. In the context of the US market, particular examples include “Hot Lotto”, “Mega Millions”, “Powerball”, “Paycheck”, and “Tri-State”.
- Traditional draw lotteries, instant lotteries and “scratch” lotteries.
- Raffles, or other games where a player is provided with one or more unique tickets carrying respective ticket identifiers, and one or more winners are identified based on the selection of one or more winning ticket identifiers.
- “Keno”, “Bingo” and “Housie”, “Tombola” and “Chinese Raffle” style games where players seek to reconcile their own numbers with numbers drawn from an independent objective source.
- Sports betting activities and football pools, whether pari-mutuel or “fixed-odds” based.
- Events-based betting activities involving such outcomes as political contests, Royal or noteworthy births, weather outcomes and natural phenomena.
- Totalisators.

- Sweepstakes for any events such as horse, dog or any other form of racing, sporting contests, political contests and the like.
- PC-based and other electronic gaming contests, including online chance-based, skill-based or combination chance/skill-based gaming contests. These include online video games, where outcomes are in part dependant on a player's skill, and in some cases in part dependent on random factors including chance.
- Other games or contests of skill and/or knowledge and/or chance.
- Chance-based games played on poker and other electronic gaming machines.
- Any games of skill and/or chance involving one or more unknown outcomes, whether pari-mutuel or "fixed-odds" based.

It will be appreciated that, in all of these examples, multiple players provide respective entry fees and, in exchange for the entry fees, the players are respectively provided with one or more entries.

The term "pari-mutuel" refers generally to a gaming arrangement whereby prizes are funded in whole or in part by entry fees. This term is intended to be synonymous with "paramutual", "para-mutual", "parimutuel" "mutual betting" and other variants.

A "method for providing a gaming activity" includes substantially any method by which a gaming activity is provided. This includes, but is not limited to, methods performable by administrators of gaming activities, methods performable by vendors of entries in gaming activities, methods performable by players, computer implemented methods performable in relation to the administration of gaming activities and/or sale of entries in such gaming activities, and so on. Likewise, a "system for providing a gaming activity" includes substantially any hardware component or group of hardware components associated with the performance of a method for providing a gaming activity. For example, such systems include information systems maintained or implemented by or on behalf of administrators of gaming activities, vendors of entries in gaming activities, or the players themselves.

As used herein, the term "gaming operator" describes a party or group of parties responsible for the carriage and administration of a gaming activity. That is, a

gaming operator is responsible for tasks including, but not limited to defining entry parameters and other predefined terms and conditions for the gaming activity, offering for sale entries in exchange for entry fees, receiving entry fees from players, allocating entries to players in exchange for those entry fees, identifying one or more winning entries, and arranging for the distribution of prizes among the players. In practice, these tasks are often performed by a number of parties. For example, a first category of party (such as vendors or agents) may be responsible for offering for sale entries in exchange for entry fees and receiving entry fees from players, whilst a second party may be responsible for identifying one or more winning entries. However, this is ignored for the present purposes, and the term "gaming operator" should be read sufficiently broadly so as to cover whatever group of related and/or unrelated parties are responsible for the carriage and administration of a particular gaming activity.

Thus, in some cases, a gaming activity may be provided by a plurality of parties, which might or might not be related or affiliated. Additionally, in some cases, a gaming activity may include a plurality of sub-activities, such as individual lotteries, that might in themselves be provided by differing parties. However, it should be appreciated that a plurality of such sub-activities, regardless of the nature of the relationship between providing parties, should be considered as a single gaming activity in the context of the present disclosure. In some cases, a plurality of sub-activities may be conducted by differing parties in different locations and/or with differing branding. However some or all of the entry fees from these sub-activities might be notionally or physically combined into a common pool, for example to facilitate investment, risk management or infrastructure sharing activities. In such cases, the sub-activities should certainly be collectively regarded as a single gaming activity in the context of the present disclosure.

Syndication

In some cases there is a minimum spend level in a gaming activity. For example, there is a minimum level of financial consideration in exchange for which one or more entries are able to be obtained. Often, this minimum spend level is determined such that it is equal to the smallest unit of currency for a jurisdiction (i.e., \$0.01 in the case of the United States and Australia, such that "X" entries are available for a price of \$0.01, wherein $X \geq 1$, but no entries are available for a price of less than

\$0.01). However, in some embodiments that is not the case. For example, in one embodiment a minimum spend level is set by a third party gaming operator that conducts gaming independently of a system such as system 100 or system 200, that minimum spend level being greater than the smallest unit of currency for the relevant jurisdiction.

In some embodiments where the minimum spend level is greater than the smallest unit of currency for a jurisdiction, a syndication process is used such that consumers having amounts of less than the minimum spend level can nevertheless compete in a gaming activity. In overview, credits available in consumer accounts for a plurality of consumers are syndicated together to provide an entry fee of value at least equal to the minimum spend level (or, in some cases, an integral multiple of the minimum spend level), and one or more entries are allocated on the basis of that entry fee. Conceptually, these entries are partially owned by each of the plurality of syndicated consumers. In this way, the loose change of a given consumer is effectively applied to partially fund one or more entries in a gaming activity.

In implementing syndication, it is initially necessary to form syndicates. The manner by which syndicate formation is administered varies between embodiments. Several examples are discussed below:

- Upon receipt of a residual transaction amount for a given consumer, data indicative of the consumer and amount is added to a syndicate formation list. Once the sum of the amounts in this list reaches the minimum spend level, an entry fee equal to the minimum spend level, and the available number of entries (often a single entry) is obtained in exchange for that entry fee.
- In some cases along the lines of that above, entry fees must be integral multiples of the minimum spend level, and the final amount added to the syndicate formation list brings the total to an amount greater than an integral multiple of the minimum spend level (for example where entries are \$1 each). An amount corresponding to the total less the next lowest integral multiple is “rolled-over” into a subsequent syndicate formation list such that the consumer responsible for the final amount is added to two syndicates. For example, assume that the minimum spend

level is \$1.00, and a total of \$0.90 has been added to a syndicate formation list. A further amount of \$0.15 is added pursuant to another consumer's residual transaction amount. That consumer contributes \$0.10 to the syndicate under formation, and \$0.05 to the next syndicate that is formed.

- In an example along the lines of FIG. 4B, syndicates are formed at the commencement of a gaming entry allocation period. For example, all of the available amounts in consumer accounts are processed in accordance with a predefined algorithm to determine the manner by which syndicates should be formed. In some cases this includes the generation of syndicate formation lists, as discussed above. In another example, each consumer's credit is split into \$0.01 portions, and these portions syndicated randomly or otherwise across the whole pool of consumers.

It will be appreciated that these examples are provided for the sake of explanation only, and should not be regarded as limiting in any way. Those skilled in the art will recognise numerous equivalent and alternative approaches.

Generally speaking, in the case that a syndicated entry wins a prize, that prize is shared among those consumers that contributed to the relevant entry fee, the sharing preferably being in accordance with the consumers' relative contributions. For example, assume that the minimum spend level is \$1.00, and a single entry is allocated in exchange for \$1.00. Further assume that, for a given syndicated entry, Consumer A contributes \$0.10, Consumer B contributes \$0.75, and Consumer C contributes the remaining \$0.15. The relative contributions for these consumers are respectively 10%, 75% and 15%. Should that entry win a prize, the prize is shared among the consumers in accordance with those percentages.

In some cases syndication is provided as an option only. For example, in some embodiments:

- Syndication might be offered as an alternative to value-level participation. In the case of value-level participation, entries are obtained for a consumer upon that consumer's account reaching a pre-specified level of credit (which might be the minimum spend level).

For example, each time the account of a particular consumer reaches \$X, that \$X is exchanged as an entry fee in a pre-identified gaming activity, such as a risk-profile affected gaming activity or a syndicated gaming activity.

- 5
- Syndication might be offered to provide consumers access to potentially more lucrative gaming activities.

It will be appreciated that syndication allows small amounts of credit to be applied in a useful manner, which might not have otherwise been possible. Given the present context, being management of typically small amounts of credit, this is a particularly advantageous result.

10

Risk Profiles

The term “conventional gaming”, as used herein, refers to a form of gaming wherein an entry fee is exchanged for one or more entries, the entry fee being placed “at risk”. The entry fee is “at risk” in the sense that, should none of the one or more entries be identified as winning entries, the entry fee is lost and the entry expired. In fact, in most forms of traditional gaming, even in the event of a winning outcome the entry fee is lost, although in most cases this loss would be more than offset by the winnings. In either case, this is particularly contrasted in the present context with “risk free” gaming, where the entry fee is refunded in cases where none of the one or more entries allocated to a particular player are identified as winning entries. In such embodiments, the consumers are essentially able to participate in a gaming activity without risking all (or any, in the case of risk-free gaming) of the credit in their respective consumer accounts. This credit may be subsequently withdrawn in a monetary form (or in exchange for goods and/or services) at substantially any point in time.

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In the context of risk-free gaming and partial risk gaming, it is helpful to consider each entry fee being placed on the basis of a “risk profile”. In overview, a risk profile defines a proportion of an entry fee that is refundable on the basis of predetermined refund criteria and a complementary proportion of the entry fee that is placed at risk. The term “complementary” is primarily used herein with reference to relative percentages of two mutually exclusive components or proportions, primarily the proportion of an entry fee that is placed at risk, and the “complementary”

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proportion that is refundable (or vice versa). In this context, if a given proportion is X%, then the complementary proportion would be 100% - X%. It should also be noted that as used herein, unless the context clearly dictates otherwise, any reference to "a proportion" is intended to encompass the situations where that proportion is 0% or 100%, as well as any intermediate percentage.

The nature and number of risk profiles defined varies between embodiments. There are three main categories of risk profile:

- "No-risk" risk profiles. These are risk profiles for which 100% of the entry fee is refundable (risk free gaming).
- "Full-risk" risk profiles. These are risk profiles for which 100% of the entry fee is placed at risk (traditional gaming).
- "Hybrid" risk profiles. These are risk profiles for which X% of the entry fee is refundable and Y% of the entry fee is placed at risk, wherein $X + Y = 100$ and wherein $0 < X < 100$. It will be appreciated that, at least theoretically, an infinite number of hybrid risk profiles are definable (partial risk gaming).

It will be appreciated that which one or more of these categories are made available varies between embodiments. In particular, some embodiments make use of a no-risk profile and full-risk profile exclusively, some embodiments make use of a no-risk profile, a full-risk profile and one or more hybrid risk profiles, some embodiments make use of a no-risk profile and one or more hybrid risk profiles, some embodiments make use of full-risk profile and one or more hybrid risk profiles, and some embodiments may only make use of one or more hybrid risk profiles.

The manner in which risk profiles are defined also varies between embodiments. Generally speaking, there are two main approaches, which are by no means mutually exclusive. The first approach is for a gaming operator to stipulate one or more predefined risk profiles, and make these available to players. In one such embodiment only the "no-risk" and "full-risk" profiles are made available, while in another such embodiment hybrid-risk profiles are additionally or alternatively made available at, for example, 20% increments (20% at-risk with 80% refundable, 40% at-risk with 60% refundable, and so on). Of course, this simple example should not be regarded as limiting, and other increments (including consistently and inconsistently

spaced increments) are used in other instances. The second approach is for a gaming operator to allow players to stipulate risk profiles. For example, in some embodiments, a given player is invited to stipulate precisely how much of his or her entry fee is to be placed at risk, and/or how much of his or her entry fee is to be refundable. Although “and/or” is used in this situation, it will be appreciated that in most cases a player, by stipulating precisely how much of his or her entry fee is to be placed at risk, inherently by exclusion stipulates how much is to be refundable, and vice versa.

The term “refund” as used herein is intended to encompass a full or partial refund of the value component of an entry fee, whether in the form in which it was contributed or in some other form. Refunds may therefore be in cash or in kind. In particular, in some embodiments of the invention, a refund may take the form of a limited rollover entry for a specified number of subsequent gaming activities of the same or different type, an unlimited rollover entry for an indeterminate number of subsequent gaming activities of the same or different type, or the maintenance of a limited rollover entry or an unlimited rollover entry from a previous gaming activity. The term is also intended to encompass the option of a refund, in whatever form, whether or not that option is exercised at any particular point in time, or at all. In some embodiments a player is able to exercise the option of a refund at substantially any point in time. Further, the term “refund” is intended to encompass the concept of a promised prize, whether as an alternative to, or in addition to, a refund based on the value component of the entry itself. It is therefore possible that a refund in the context of particular gaming activities may exceed the full value component of the corresponding entry.

In the present context, the term “entry fee” describes a sum of consideration that constitutes a wholly or partially (or non) refundable payment. No specific implications or connotations should be drawn from the use of the word “fee”, which is descriptive in a general sense only. In some embodiments the entry fee is provided in whole or in part as monetary currency. In other embodiments the entry fee is notionally derived – such as where a consumer purchases predefined goods and/or services unrelated to an entry, and an entry fee is notionally determined as a function of the purchase value, or where the player participates in marketing activities (by

viewing advertisements or responding to a survey, for instance), and an entry fee is notionally defined on the basis of a benefit that the gaming operator or a third party receives by virtue of the player's participation in those marketing activities. That is, by purchasing a certain product, a consumer may be deemed to have provided an entry fee, and is correspondingly allocated one or more entries. In the presently considered
5 embodiments, the entry fee is wholly provided for the purpose of participation in a gaming activity.

In some embodiments, the "entry fee" defines only a portion of the sum of consideration provided by a player in exchange for one or more entries. For example,
10 in some embodiments a player provides an entry amount, including an entry fee and an additional component, this additional component being, in some cases, attributable to an operator service charge. In some embodiments, although an entry fee is fully refundable, it is only the entry fee component of an entry amount that is fully refundable, with the additional component being non-refundable. It should also be
15 appreciated that the "entry fee" need not be monetary in nature at all, but could constitute any tradable commodity having a real, virtual, deemed or perceived value.

Risk-Free Gaming

It will be appreciated from the foregoing description that the term "risk-free gaming" essentially describes a form of gaming whereby entry fees are placed subject
20 to a "no-risk" risk profile - that is, 100% of the entry fee is refundable. In some embodiments, consumer accounts are implemented on the basis of a default position of full participation in risk-free gaming. In some such embodiments there are no other options (i.e. all consumers have full participation in risk-free gaming).

It is presently considered that risk-free gaming is particularly advantageous in
25 the context of a system for managing residual transaction amounts. In particular, it is thought that consumer willingness to make use of a residual transaction amount management system will be enhanced on the basis of the credit diverted being later redeemable substantially in full. That is, there is no substantial cost to the consumer in using the system (other than perhaps a commission, service fee, or other administration
30 charge). In some embodiments, it could be considered that there is also an "opportunity cost" to the consumer on the basis of the time-value of the residual transaction amounts under management. In the context of the present invention,

however, most consumers would regard this cost as negligible. Moreover, in some embodiments, actual or notional interest could be applied to the consumer accounts. In cases where there is no substantial cost incurred, the consumer's decision to participate is relatively uncomplicated. Such a decision becomes more difficult in the case that the consumer may have to place credit at risk for the purpose of gaming. However, in the case of risk-free gaming, this complication is averted. Indeed, the net result is essentially a system for managing residual transaction amounts for the primary purpose of accumulation without the hitherto attendant inconveniences, while providing, as a further benefit, a chance to win prizes. Given that a residual transaction management system is, at a practical level, typically implemented by a supplier for the purpose of consumer enticement and to provide a competitive advantage over other suppliers who do not implement such a system, the application of risk-free gaming is particularly advantageous.

Multiple Risk Profiles

In some embodiments, consumers are provided, by way of the gaming settings, with an option to place some or all of their respective residual transaction amounts at risk by selecting a less conservative risk profile than a no-risk default position.

In embodiments where consumers are able to participate in a gaming activity on the basis of two or more risk profiles, the risk profile selected affects one or more characteristics of the entries allocated, such as the number of entries allocated, which in turn affects the probability of a winning outcome. It will be appreciated that, by selecting a risk profile, a player is essentially able to manage the risk taken, with risk inherently increasing in relation to a given entry fee as a greater proportion of that entry fee is placed at risk.

Several categories of examples regarding how the selection of a risk profile affects the player's involvement in the gaming activity are considered below, and fall into the following general categories:

- *Risk and Chance.* Under this category, the risk profile selected by a given player affects the relative probability of that player winning a prize in relation to the gaming activity in exchange for the entry fee provided. In some cases, this relative probability is increased by allocating more entries, and the risk profile selected by a given player

affects the number of entries allocated to that player in exchange for the entry fee provided. In other embodiments, a similar result may be achieved through suitable algorithms or other mathematical methods.

- 5 • *Risk and Cost.* Under this category, the risk profile selected by a given player affects the quantum of entry fee in exchange for which a predetermined number of entries is allocated.
- 10 • *Risk and Return.* Under this category, the risk profile selected by a given player affects one or more characteristics of a prize winnable by that player in exchange for the entry fee provided. For example, in one embodiment, players selecting to place a greater proportion of the entry fee at risk relative to other players, gain access to relatively more valuable prizes, or categories of prizes.
- 15 • *Combination Approaches.* This category combines two or more of the above categories. For example, in some cases, the risk profile selected by a given player affects the quantum of entry fee in exchange for which a predetermined number of entries is allocated and one or more characteristics of a prize winnable by that player in exchange for the entry fee provided.

20 The term “relative probability” essentially describes the probability of an entry being identified as a winning entry, relative to the total number of entries at the time the outcome is determined (that is, the time of step 301). As used herein, the terms “chance” and “chances” are particularly distinguished from the concept of relative probability. The term “chance” is used to describe a notional unit of chance, and the relative probability of this “chance” winning a prize depends on the total number of competing chances. For example, if a first player is awarded a single chance in a game where there are a total of 100 chances awarded, that player has a 1 in 100 relative probability of winning on the basis of that chance. If a second player in the same game is awarded 10 chances of these 100 total chances, that player has a 1 in 10 relative probability of winning. If another 100 chances are subsequently awarded, increasing the total number of chances in the game to 200, the first and second player’s relative probabilities of winning decrease to 1 in 200 and 1 in 20 respectively. As used herein, unless the context dictates otherwise, the phrase “chances of winning” relates to the

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number of chances, and not necessarily to the relative probability of winning, although it will be appreciated that the two concepts are interrelated and in some cases may be used interchangeably, at least in a general sense.

Funding of Prizes

5 The manner by which prizes are funded varies between embodiments. In the case of traditional gaming activities, funding is a relatively straightforward affair, with the prizes being predominately funded by entry fees (i.e. residual transaction amounts). However, funding is less straightforward in the cases of no risk and partial risk gaming. In some such cases, prizes are funded in whole or in part by “supplementary contributions”. The supplementary contribution amount provided by or on behalf of a given player in some embodiments includes components having values corresponding to any one or more of:

- 15 • A net investment return derived by subjecting individual or cumulative residual transaction amounts to an investment procedure for a period of time (such as from the time a residual transaction amount is received to the time primary prizes are allocated). The investment procedure derives a gross investment return, and of this a net investment return preferably defines a component of a player’s supplementary contribution amount. Such investment returns may be actual or notional.
- 20 • A net distribution marketing amount. For example, a third party provides a gaming operator with a gross distribution marketing amount (such as currency or goods/services) in consideration for marketing information being provided to a player. Of this gross distribution marketing amount, a net distribution marketing amount preferably provides a component of the player’s supplementary contribution amount. In some cases, a player receives a ticket (physical or electronic) as a receipt for placing a residual transaction amount, and this ticket carries the relevant marketing information, which could, for example, be as straightforward as the visual display of a corporate logo for promotional purposes. In some cases a player is able to increase his/her net distribution marketing amount by receiving further marketing material – for example by viewing electronic advertisements.
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- A net collection marketing amount. This is similar to the example considered above, however in this case is derived by collecting information from players, such as personal information or opinion information. For example, in some cases a player is able to increase his/her net collection marketing amount by participating in a market research survey, or providing some personal contact information.
- Other net operator or third party contribution amounts.

This is by no means an exclusive list, and alternative embodiments make use of a wider range of possible methodologies and amounts. In overview, supplementary contribution amounts are combined into a prize pool for funding prizes in relation to the gaming activity. The relative magnitudes of these amounts as between players preferably affect some characteristic of the gaming activity, the entries for the gaming activity submitted on behalf of respective players, or the manner in which the respective players otherwise participate in the gaming activity.

There is discussion in the above examples of “gross” amounts and “net” amounts. The terms “gross” and “net” are used in a general descriptive sense only. In particular, the term “gross” refers to an amount derived by the gaming operator, and the term “net” refers to an amount that is added as the supplementary contribution amount. In some cases the net amount is the corresponding gross amount less any applicable taxes, levies, duties, commissions or operator charges. In some cases, the gross and net amounts are the same. In other cases there is no direct nexus between the gross and net amounts.

In some cases consumers are able to increase their respective likelihoods of winning a prize by taking active steps to increase their respective supplementary contributions. In some cases this supplementary contribution simply results in additional entries being allocated (i.e. no credit to consumer account), however in other embodiments consumers receive a direct financial reward for making a supplementary contribution (i.e. a credit to the consumer account). For example, in one embodiment, a player who agrees to respond to a survey question at the point of sale receives an additional credit amount in conjunction with the residual transaction amount, this additional credit amount being considered for the allocation of entries and, assuming it

is not placed at risk subject to entry settings, can be redeemed via a withdrawal request.

In some embodiments, particularly embodiments involving risk-free gaming, prizes are funded out of an investment return derived from temporarily holding the collective loose change of a plurality of consumers. That is, the loose change of these consumers is maintained in one or more interest bearing accounts (or otherwise invested) to generate an investment return, and a portion of this return is distributed as one or more prizes.

Comments on Local Laws

It is appreciated that various embodiments described herein include or refer to practices or subject matter that may be considered as being contrary to local laws in various jurisdictions. To the extent that the claims below cover subject matter that is contrary to the local laws of a particular jurisdiction, the claims should be interpreted in that jurisdiction in a manner so as to exclude any practices or subject matter that is indeed contrary to those local laws. A particular example presently considered is Sharia law, which may adopt a contrary stance to various aspects of gaming and investment as described herein. However, those skilled in the art will recognize how certain embodiments of the invention may nevertheless be implemented in accordance with Sharia law.

Conclusions

The above disclosure provides various useful systems and methods for managing residual transaction amounts. This inherently facilitates a reduction in the need for consumers to carry loose change. Moreover, where gaming functionalities are provided, the systems and methods not only allow for the generation of revenue by gaming, but additionally provide participating suppliers with a commercial advantage over non-participating suppliers. In these and other respects, the invention represents a practical and commercially significant improvement over the prior art.

Although the invention has been described with reference to specific examples, it will be appreciated by those skilled in the art that the invention may be embodied in many other forms. While there has been described what are believed to be the preferred embodiments of the invention, those skilled in the art will recognize that other and further modifications may be made thereto without departing from the spirit

of the invention, and it is intended to claim all such changes and modifications as falling within the scope of the invention. For example, any formulae given above are merely representative of procedures that may be used. Functionality may be added or deleted from the block diagrams and operations may be interchanged among functional
5 blocks. Steps may be added to or deleted from methods described herein whilst remaining within the scope of the present invention.

CLAIMS

1. A computer implemented method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

identifying a residual transaction amount for a given consumer; and

5 applying a predetermined proportion of the residual transaction amount as an entry fee in a gaming activity such that the consumer is allocated one or more entries in the gaming activity, wherein:

(i) for each entry that is identified as a winning entry, the consumer is allocated a total return amount having a value greater than the value of the entry fee exchanged for that entry; and

10 (ii) for each entry that is not identified as a winning entry, the consumer is refunded a value corresponding to the entry fee exchanged for that entry.

2. A method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

15 receiving data indicative of an account identifier and a residual transaction amount;

querying a consumer account database to identify a consumer account corresponding to the account identifier;

20 crediting the identified consumer account by an amount including at least a portion of the residual transaction amount;

querying the consumer account database to determine whether or not to exchange a portion of credit in the identified consumer account for gaming value; and

25 in the case that the portion of credit is to be exchanged for gaming value, defining that portion as at least part of an entry fee in a gaming activity, wherein the entry fee is at least partially refundable irrespective of the outcome of the gaming activity.

3. A method for managing residual transaction amounts for a plurality of consumers, the method including the steps of:

receiving data indicative of an entry fee, the entry fee being defined by at least a portion of a residual transaction amount for a consumer; and

exchanging the entry fee for one or more entries in a gaming activity, wherein the entry fee is at least partially refundable irrespective of the outcome of the gaming activity.

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4. A computer-readable carrier medium carrying a set of instructions that when executed by one or more processors cause the one or more processors perform a method according to any one of claims 1 to 3.

5. A computer system including one or more processors, the system being configured to carry out a method according to any one of claims 1 to 3.

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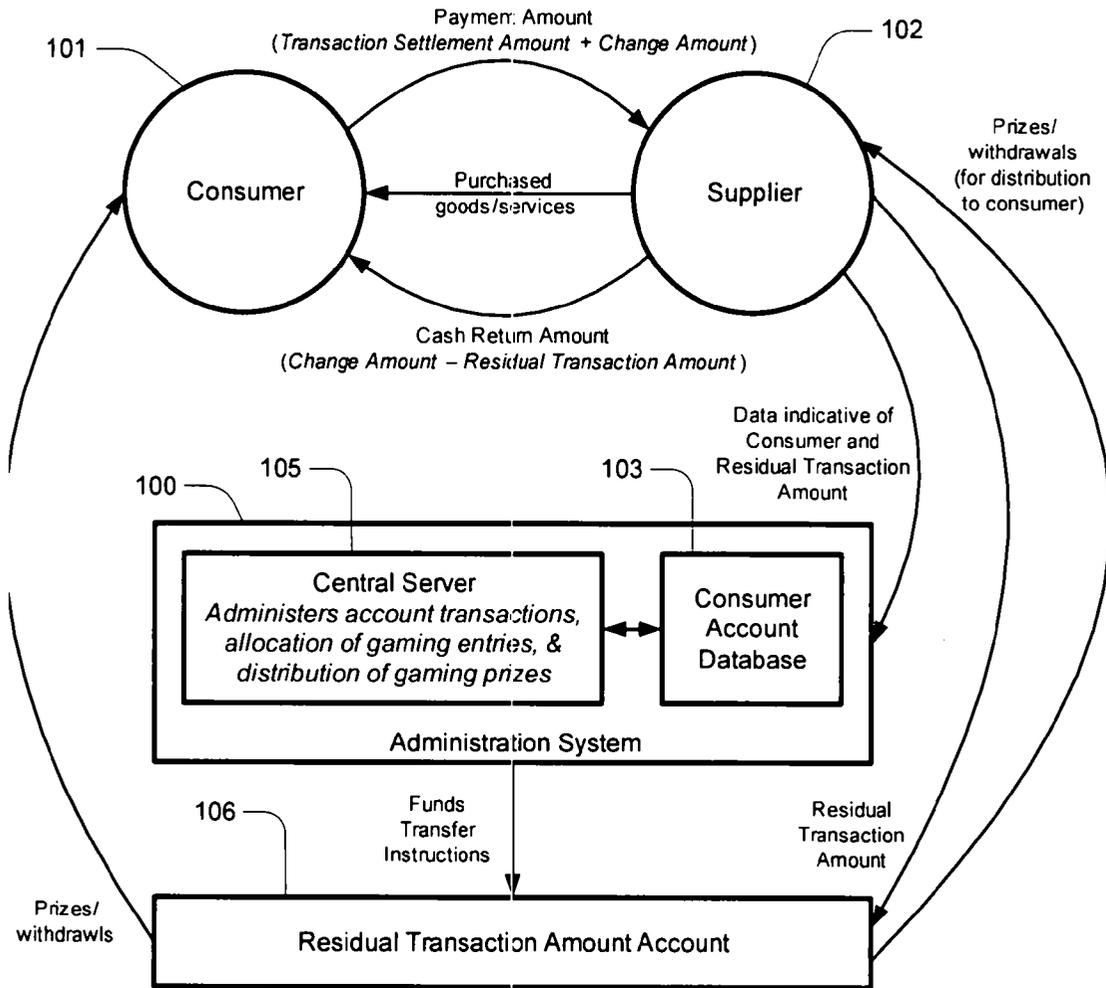


FIG. 1

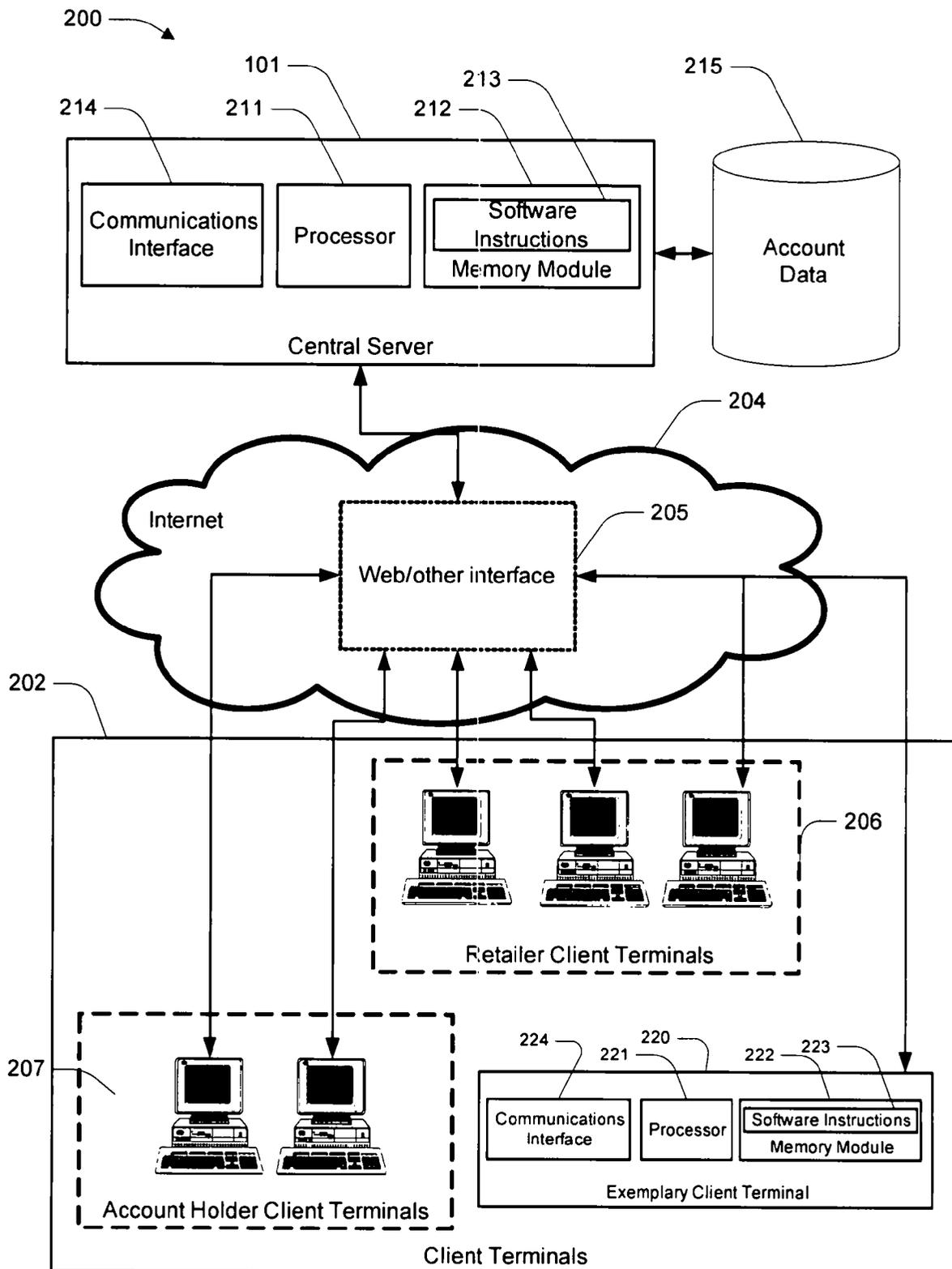


FIG. 2

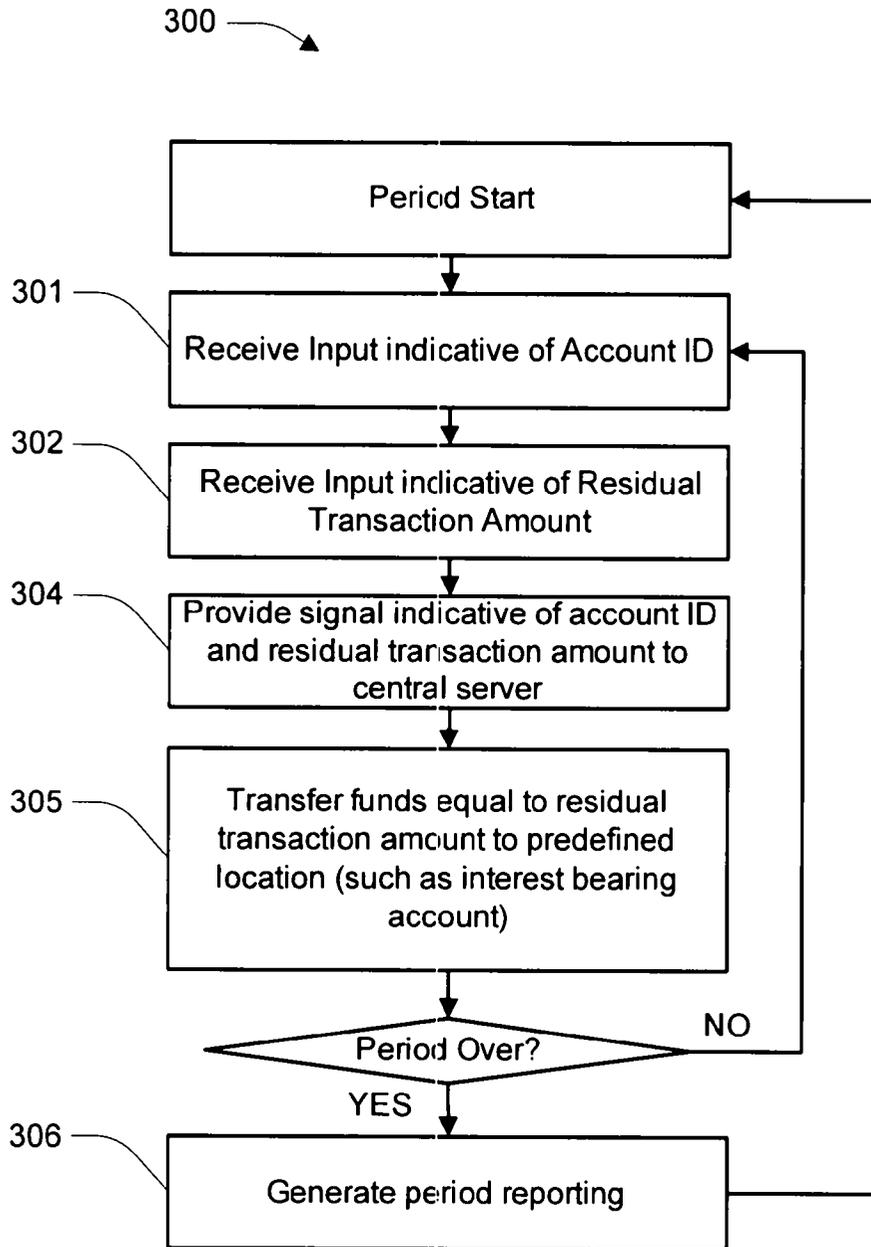


FIG. 3A

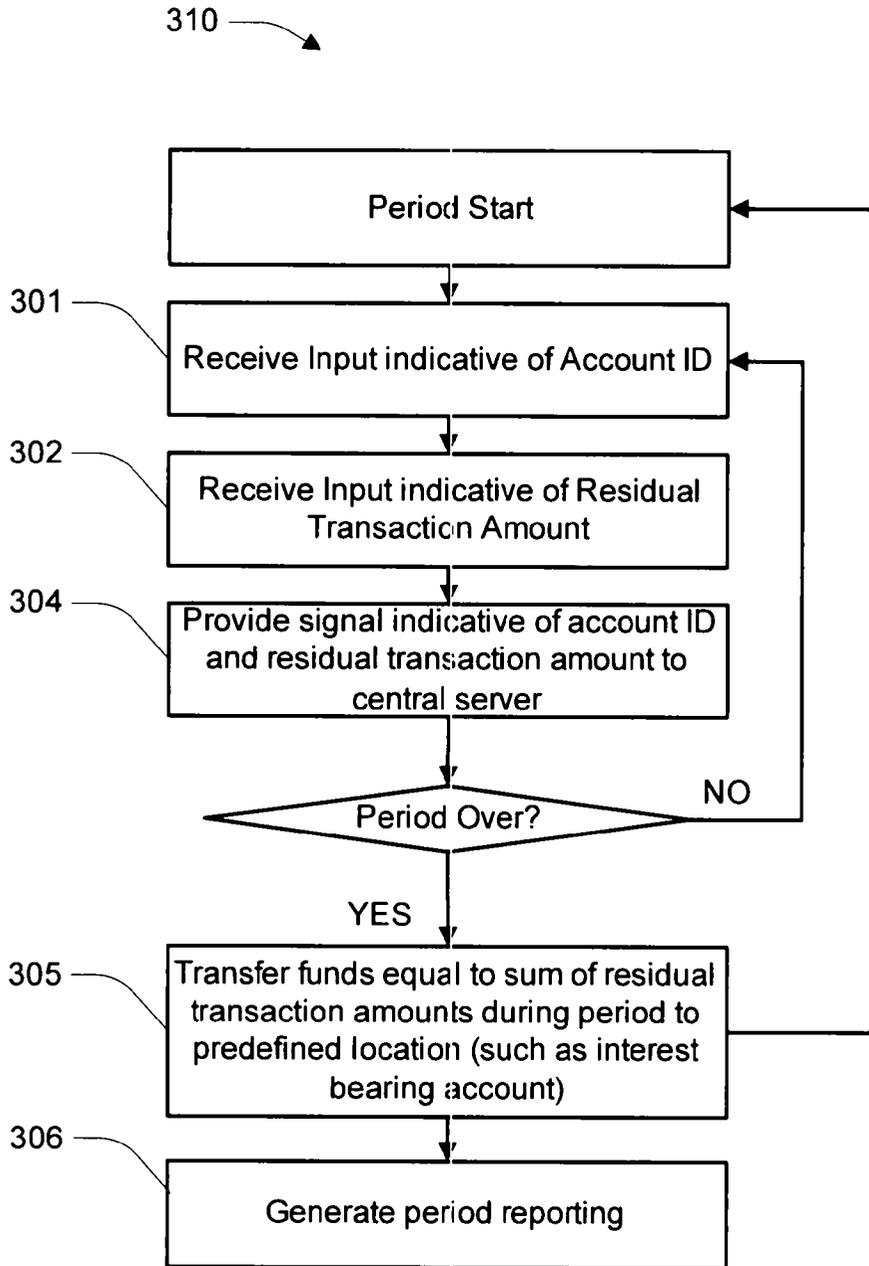


FIG. 3B

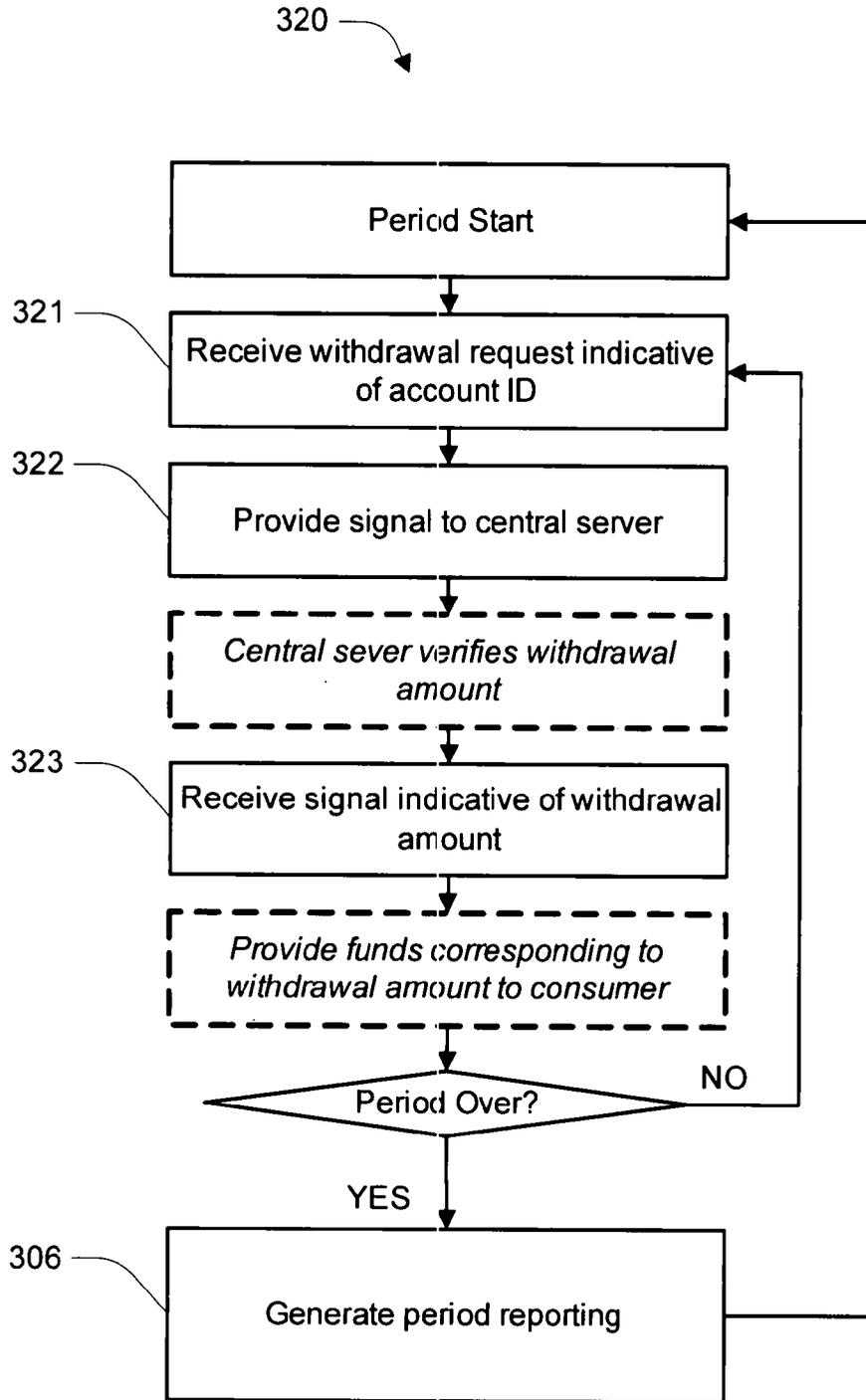


FIG. 3C

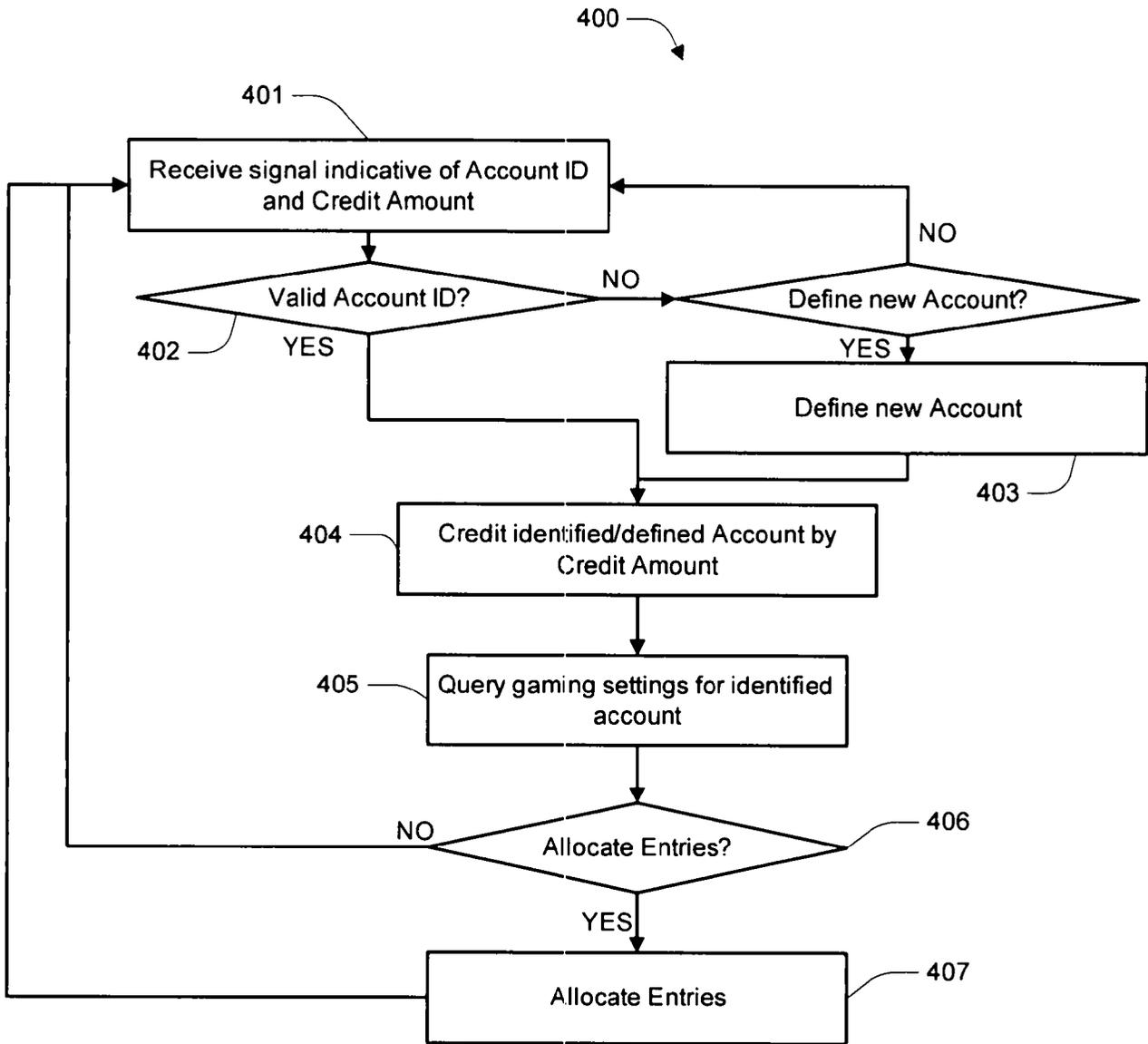


FIG. 4A

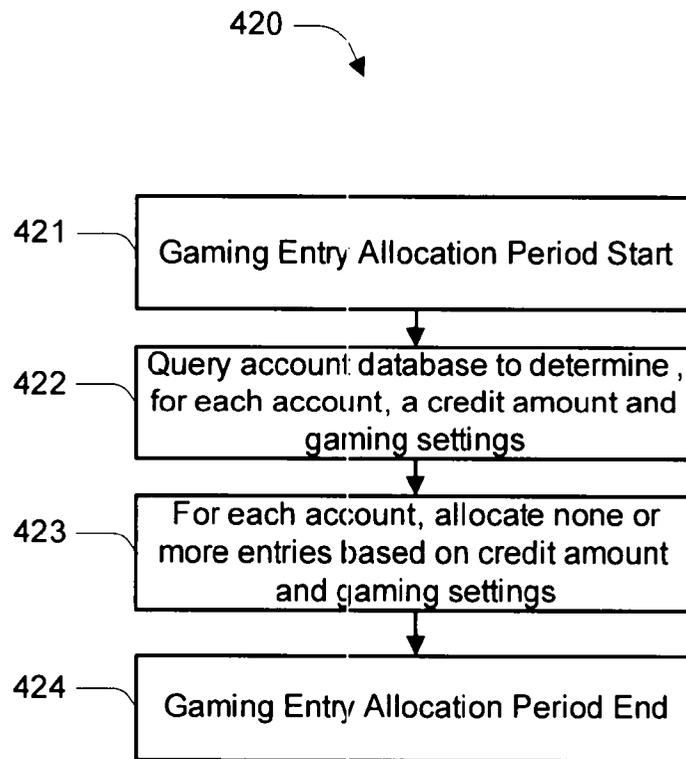


FIG. 4B

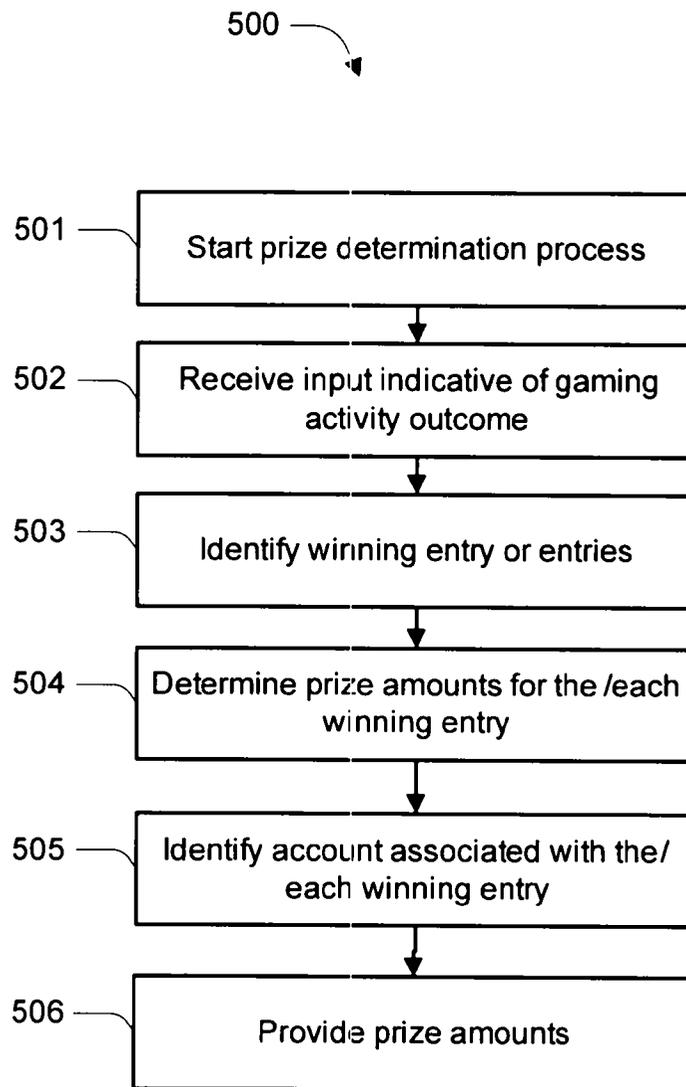


FIG. 5A

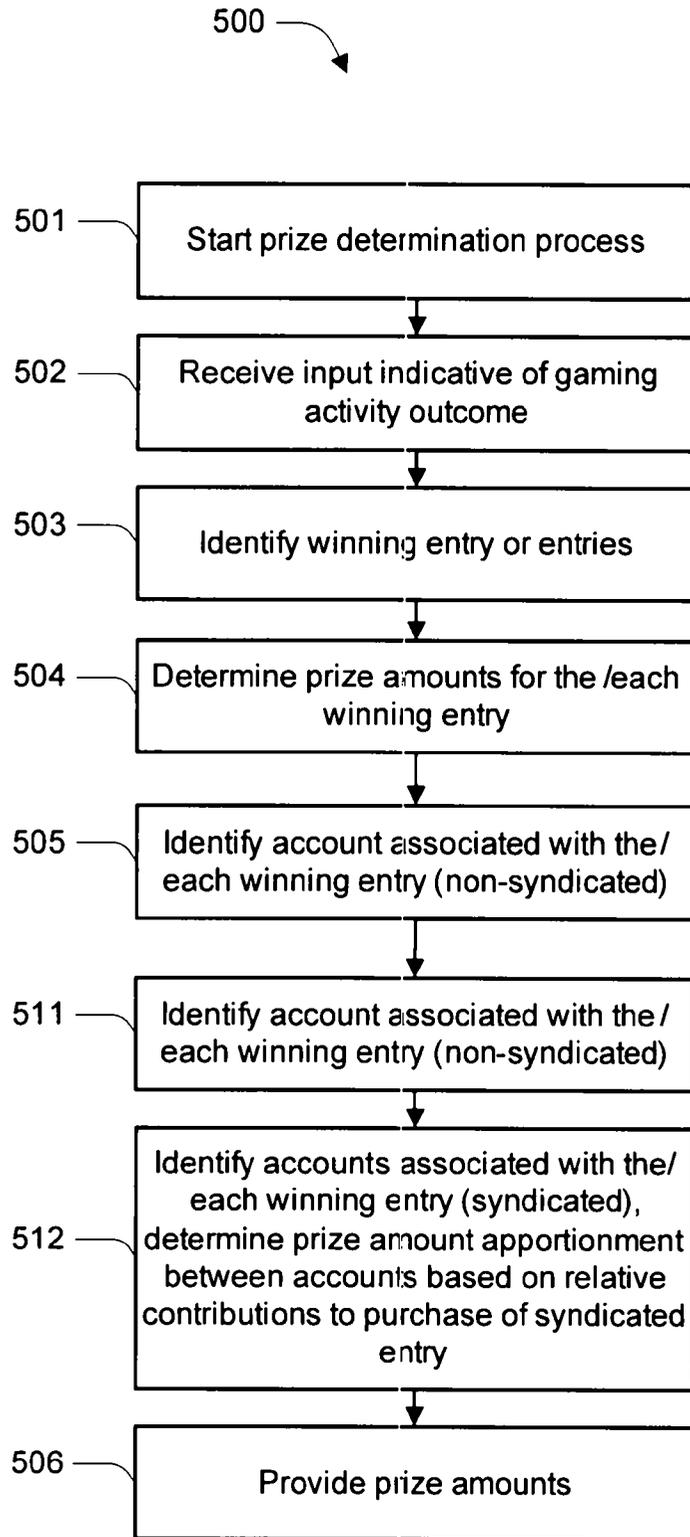


FIG. 5B