SYSTEM AND METHOD FOR POOLING LOTTERY CHANCES

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LOTTERY PROCESS

600 Receive player information

610 Purchase Ticket?

620 Yes

630 Automated Data Available?

640 Query player for ticket information

650 Transmit ticket information including ticket id to Lottery Computer

660 Receive response from Lottery Computer via interface confirming purchase and providing particulars

670 Parse response data and store in ticket database

680 Generate electronic ticket with appropriate ticket information including ticket number and selected numbers for game

690 Confirm physical receipt of player's ticket

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ABSTRACT

A system and methods for facilitating player participation in a lottery. The present system and methods provide players with the ability to pool their purchases in order to increase their chances of winning. In addition, the system provides players with the ability to purchase tickets through the Internet and can automatically notify players when they have won, the amount they have won and provides the winnings securely into an electronic account.
LOTTERY TICKETING SYSTEM

Fig. 1
<table>
<thead>
<tr>
<th>Numbers</th>
<th>Megaball</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 3 5 34 41</td>
<td>9</td>
</tr>
<tr>
<td>2 17 19 44 47</td>
<td>33</td>
</tr>
<tr>
<td>4 13 25 34 50</td>
<td>2</td>
</tr>
<tr>
<td>22 23 25 36 51</td>
<td>26</td>
</tr>
<tr>
<td>1 4 11 22 28</td>
<td>11</td>
</tr>
</tbody>
</table>

Fig. 2
<table>
<thead>
<tr>
<th>Ticket Number</th>
<th>Game Type</th>
<th>Numbers Selected</th>
<th>Merchant ID</th>
<th>Drawing Date</th>
<th>Confirmed Ticket</th>
</tr>
</thead>
<tbody>
<tr>
<td>45677</td>
<td>Pick 6</td>
<td>1, 4, 6, 19, 32, 37</td>
<td>44</td>
<td>6/16/2005</td>
<td>Y</td>
</tr>
<tr>
<td>23412414XY</td>
<td>Mega</td>
<td>2, 7, 11, 30, 34, 5</td>
<td>455</td>
<td>7/15/2005</td>
<td>N</td>
</tr>
<tr>
<td>5UB4027XX6</td>
<td>Mega</td>
<td>1, 3, 5, 34, 41, 9</td>
<td>440</td>
<td>7/15/2005</td>
<td>Y</td>
</tr>
<tr>
<td>45678</td>
<td>Pick 6</td>
<td>2, 5, 11, 20, 32, 44</td>
<td>445</td>
<td>9/11/2005</td>
<td>Y</td>
</tr>
</tbody>
</table>

Fig. 4
<table>
<thead>
<tr>
<th>Ticket Number</th>
<th>Pool ID#</th>
<th>Entered Date</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>525</td>
<td>530</td>
<td>6/22/2005</td>
<td>505</td>
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<td></td>
<td></td>
<td>7/13/2005</td>
<td>510</td>
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<td></td>
<td></td>
<td>7/14/2005</td>
<td>515</td>
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<td></td>
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<td>9/8/2005</td>
<td>520</td>
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<tr>
<td>45677</td>
<td>234</td>
<td>725</td>
<td></td>
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<td>725</td>
<td>725</td>
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</tr>
<tr>
<td>5UB4027XY6</td>
<td>235</td>
<td></td>
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</tr>
</tbody>
</table>
LOTTERY PROCESS

600

Receive player information

610

Purchase Ticket?

620

Yes

Ticket Sale
700

Automated Data Available?

630

Yes

Transmit ticket information including ticket id to Lottery Computer

640

Query player for ticket information

650

Receive response from Lottery Computer via interface confirming purchase and providing particulars

660

Parse response data and store in ticket database

670

Generate electronic ticket with appropriate ticket information including ticket number and selected numbers for game

680

Confirm physical receipt of player’s ticket

690

Fig. 6
TICKET SALE PROCESS

600

Automatic Ticket Purchase?

Yes

Determine ticket purchase information, including desired numbers

720

Transmit ticket purchase information to Lottery Computer

730

Receive response from Lottery Computer via Interface confirming purchase and providing particulars

740

Parse response data and store in ticket database

750

Deduct ticket price from player's account

760

Generate electronic ticket with appropriate ticket information including ticket number and selected numbers for game

770

End

Fig. 7
800
POOLED TICKET PROCESS

810
Ensure ticket confirmed

820
Query player for pool to enter confirmed ticket in

830
Determine Pool Results from Winning Ticket Evaluation Process

840
Credit pool participant's account with pro rata share winnings & notify player

Fig. 8
WINNING TICKET PROCESS

910
Receive drawing winning number information

920
Process confirmed tickets in ticket database

930
Receive response from Lottery Computer via Interface confirming winning ticket

940
Redeem winning tickets

950
Is ticket Pooled?

960
Credit winnings to player's account & notify player

970
Credit winnings to pool

Fig. 9
SYSTEM AND METHOD FOR POOLING LOTTERY CHANCES

FIELD OF THE INVENTION

[0001] The present invention relates generally to a system for automated processing of lottery ticket transactions, and more particularly, to a system for processing lottery tickets through the Internet so that winning results can be pooled among the participants.

BACKGROUND OF THE INVENTION

[0002] Many state governments conduct lotteries. Government-conducted lotteries offer players the chance to win a large prize, and have the added benefit of increasing governmental revenues without burdening the public with additional taxes. In many instances, the revenue generated from a governmental lottery is dedicated, at least in part, to a particular purpose or goal, such as improving the education system or reducing property taxes.

[0003] Typically, government-conducted lottery systems utilize a central lottery computer to communicate with remote dedicated lottery terminals. A player typically selects numbers on a lottery “sense mark slip,” and the lottery terminal operator inserts the sense mark slip into a reader at the lottery terminal, which optically reads the sense mark slip using a known mark sensing process. Alternatively, most lottery systems offer automatic lottery number generation features, commonly referred to as “quick-pick” systems, which randomly select lottery numbers on behalf of the player. The dedicated lottery terminal then communicates the player’s selected numbers to the central lottery computer for validation and storage. After the lottery numbers have been stored, the dedicated lottery terminal, under the direction of the central lottery computer, prints and issues the official lottery ticket.

[0004] One popular lottery game, commonly referred to as “Mega-Millions,” typically requires the player to choose five numbers between one and fifty-six, plus a “Mega-Ball” number between one and forty-six. The selected group of numbers are then compared to the winning lottery numbers, which have been randomly selected, at a specified time and date after purchase of the lottery ticket. To win a prize, the player-selected lotto ticket numbers must match all or some of the winning lottery numbers.

[0005] If the jackpot prize is not awarded for a particular lottery drawing, the jackpot prize value typically rolls over to increase the jackpot for the subsequent drawing. Thus, jackpots increase from week to week as no one wins. The amount of the jackpot prize is typically determined based on a sales trend from the prior year. It has been found that many people only buy lottery tickets when the jackpot exceeds a certain amount. Thus, as the jackpot grows larger, there is a dramatic increase in the number of tickets sold. Occasionally, when jackpots have risen to particularly large amounts, some lottery systems have not had sufficient capacity to meet the increased ticket demand.

[0006] Lotto drawings are typically conducted on a periodic basis, with many state lotteries conducting “lotto” drawings as often as twice per week. Previously, players were required to appear in person at a dedicated lottery terminal to purchase their lottery tickets for each lottery drawing. In order to increase ticket sales, as well as customer-convenience, many lottery systems now offer subscription sales of lottery tickets, which automatically enter a player in the lottery game for a predefined number of weeks, often at a discounted price. But generally speaking, unless such arrangements are made in advance, when a large jackpot develops, a person wishing to enter must appear at an authorized ticket sales agent to obtain a ticket.

[0007] Thus, during times of peak demand, players are met with longer lines at lottery terminals, and generally find it more frustrating to obtain a lottery ticket. In fact, since some lotteries are offered by certain states, but not others, players would have to travel to remote destinations in order to purchase tickets in advance. Rather than providing an environment that encourages such infrequent players to become regular players, the difficulty associated with obtaining a lottery ticket for a large jackpot often discourages players from returning. While the subscription sale of lottery tickets allows regular players to enroll in all drawings for a predefined period, and thereby avoid a time-consuming trip to the lottery terminal when the jackpot increases, conventional lottery subscription sale systems do not provide a solution for infrequent players who only want to enroll in drawings associated with larger jackpot prizes.

[0008] Furthermore, since lottery tickets are typically bearer instruments, lottery participants must keep their tickets in a safe location. Additionally, the participant must check the results of the lottery against their ticket. If the lottery participant forgets to check their ticket within an allotted time period and make a claim, or otherwise discards the instrument, the participant will forfeit their potential prize.

[0009] As apparent from the above-described deficiencies with conventional systems for processing lottery ticket transactions, a need exists for a lottery ticket sale system that allows a player to buy lottery tickets in advance without being physically present. A further need exists for a system that increases ticket sales, as well as player convenience, particularly at times of peak demand. Still a further need exists to provide a user with an automated ability to be notified that their ticket has won. Finally, there exists a need for players to reliably pool ticket resources without incurring legal disputes about the partnership formed to share in their winnings.

BRIEF SUMMARY OF THE INVENTION

[0010] The system and methods of the present application provide several unique and heretofore unavailable features to players in a lottery. Rather than manually purchasing tickets, the player can purchase their tickets online through a preferred embodiment of the present invention. Players can submit their tickets to a lottery pool in order to increase their chances of winning the lottery. In addition, the system can automatically notify players when they have won, the amount that they have won and can provide their winnings securely into an electronic account.

[0011] In one aspect, the present invention is directed to an apparatus for facilitating player participation in a lottery, said apparatus comprising:

[0012] a Web server connected to the Internet containing software that, when executed by said Web server, causes said Web server to:
provide the player with access to an account; and
securely electronically transfer funds between the account and a player’s source of funds; and permit said player to participate in a lottery pool wherein said lottery tickets entered and winnings from said tickets are shared among pool participants.

In another aspect of the present invention, said software further causes said Web server to permit said player to enter lottery numbers purchased by said player.

In another aspect of the present invention, said software further causes said Web server to determine if a ticket won.

In another aspect of the present invention, said software further causes said Web server to notify the player of an amount that said player won.

In another aspect of the present invention, said software further causes said Web server to automatically transfer a pool participant’s winning share into the account.

In another aspect of the present invention, said apparatus further comprises a computing interface coupled to said central state lottery computer and to said Web server that submits lottery ticket numbers to said central lottery computer and provides purchase confirmation information of lottery tickets purchased to said Web server.

In another aspect of the present invention, said software further causes said Web server to automatically purchase a predefined number of tickets for said pool participant.

In another aspect of the present invention, said software further causes said Web server to automatically purchase tickets for said pool participant when the probabilistic worth of a ticket is more than a price to purchase said ticket.

In another aspect of the present invention, said pool consists of a single player.

In another aspect, the present invention is directed to a method of playing a lottery, said method comprising:

establishing an account for receipt and withdraw of electronic funds;
purchasing a lottery ticket; and
entering said ticket in a lottery pool, wherein said lottery tickets entered and winnings from said tickets are shared among pool participants.

In another aspect of the present invention, entering the ticket comprises entering lottery numbers of a ticket purchased by said player.

In another aspect of the present invention, the method further comprises automatically determining if a ticket won.

In another aspect of the present invention, the method further comprises automatically notifying the player of an amount that said player won.

In another aspect of the present invention, the method further comprises automatically transferring a pool participant’s winning share into the account.

In another aspect of the present invention, the ticket is automatically purchased.

In another aspect of the present invention, the method further comprises automatically purchasing a predefined number of tickets for said pool participant.

In another aspect of the present invention, the method further comprises automatically purchasing tickets for said pool participant when the probabilistic worth of a ticket is more than a price to purchase said ticket.

In another aspect, the present invention is directed to an electronic media containing a program software product, that, when loaded and executed on a general purpose computer, causes the computer to:

establish an account for receipt and withdraw of electronic funds;
permit a player to enter lottery numbers of a ticket purchased by said player;
permit a player to enter said ticket in a lottery pool, wherein said lottery tickets entered and winnings from said tickets are shared among pool participants;
determine if a ticket won; and
notify the player of an amount that said player won.

In another aspect of the present invention, the program software product contains therein, when loaded and executed on a general purpose computer, causes the computer to purchase a lottery ticket for the player using funds from the account.

In another aspect of the present invention, the program software product contains therein, when loaded and executed on a general purpose computer, causes the computer to perform one or more of the following tasks:

transfer a pool participant’s winning share into the account;
purchase a predefined number of tickets for said pool participant; and
purchase tickets for said pool participant when the probabilistic worth of a ticket is more than a price to purchase said ticket.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram that illustrates a computer system that facilitates Internet-based lottery ticket sales;
FIG. 2 illustrates information comprising an electronic lottery ticket;
FIG. 3 is a block diagram that illustrates a preferred lottery Web server;
FIG. 4 illustrates a lottery ticket database;
FIG. 5 illustrates a pooled lottery ticket database;
FIG. 6 is a flowchart that illustrates a lottery process;
FIG. 7 is a flowchart that illustrates a ticket sale transaction process;
FIG. 8 is a flowchart that illustrates a pooled ticket evaluation process; FIG. 9 is a flowchart that illustrates a winning ticket evaluation process; and FIG. 10 illustrates examples of recording media.

DETAILED DESCRIPTION OF THE INVENTION

The present invention comprises a system and methods for facilitating the participation of a player in a lottery. In a preferred embodiment, the system provides players with the ability to pool their purchases in order to increase their chances of winning. In an alternative preferred embodiment, the present invention permits the player to purchase lottery tickets through the Internet. In addition, the system can automatically notify players when they have won, the amount that they have won and can provide their winnings securely into an electronic account.

Additionally, the present invention may be described herein in terms of functional block components, code listings, optional selections and various processing steps. It should be appreciated that such functional blocks may be realized by any number of hardware and/or software components configured to perform the specified functions. For example, the present invention may employ various integrated circuit components, e.g., memory elements, processing elements, logic elements, look-up tables, and the like, which may carry out a variety of functions under the control of one or more microprocessors or other control devices.

Similarly, the software elements of the present invention may be implemented with any programming or scripting language such as C, C++, C#, Java, COBOL, assembler, PERL, Python or-the like, with the various algorithms being implemented with any combination of data structures, objects, processes, routines or other programming elements. The object code created can be executed by any computer having an Internet Web Browser, on a variety of operating systems including Windows, Mac or Linux.

Further, it should be noted that the present invention may employ any number of conventional techniques for data transmission, signaling, data processing, network control, and the like.

It should be appreciated that the particular implementations shown and described herein are illustrative of the invention and its best mode and are not intended to otherwise limit the scope of the present invention in any way. Indeed, for the sake of brevity, conventional data networking, application development and other functional aspects of the systems (and components of the individual operating components of the systems) may not be described in detail herein. Furthermore, the connecting lines shown in the various figures contained herein are intended to represent exemplary functional relationships and/or physical or virtual couplings between the various elements. It should be noted that many alternative or additional functional relationships or physical or virtual connections may be present in a practical electronic data communications system.

As will be appreciated by one of ordinary skill in the art, the present invention may be embodied as a method, a data processing system, a device for data processing, and/or a computer program product. Accordingly, the present invention may take the form of an entirely software embodiment, an entirely hardware embodiment, or an embodiment combining aspects of both software and hardware. Furthermore, the present invention may take the form of a computer program product on a computer-readable storage medium having computer-readable program code means embodied in the storage medium. Any suitable computer-readable storage medium may be utilized, including hard disks, CD-ROM, optical storage devices, magnetic storage devices, and/or the like.

The present invention is described below with reference to block diagrams and flowchart illustrations of methods, apparatus (e.g., systems), and computer program products according to various aspects of the invention. It will be understood that each functional block of the block diagrams and the flowchart illustrations, and combinations of functional blocks in the block diagrams and flowchart illustrations, respectively, can be implemented by computer program instructions. These computer program instructions may be loaded onto a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions that execute on the computer or other programmable data processing apparatus create means for implementing the functions specified in the flowchart block or blocks.

These computer program instructions may also be stored in a computer-readable memory that can direct a computer or other programmable data processing apparatus to function in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including instruction means that implement the function specified in the flowchart block or blocks. The computer program instructions may also be loaded onto a computer or other programmable data processing apparatus to cause a series of operational steps to be performed on the computer or other programmable apparatus to produce a computer-implemented process such that the instructions that execute on the computer or other programmable apparatus provide steps for implementing the functions specified in the flowchart block or blocks.

Accordingly, functional blocks of the block diagrams and flowchart illustrations support combinations of means for performing the specified functions, combinations of steps for performing the specified functions, and program instruction means for performing the specified functions. It will also be understood that each functional block of the block diagrams and flowchart illustrations, and combinations of functional blocks in the block diagrams and flowchart illustrations, can be implemented by either special purpose hardware-based computer systems that perform the specified functions or steps, or suitable combinations of special purpose hardware and computer instructions.

One skilled in the art will also appreciate that, for security reasons, any databases, systems, or components of the present invention may consist of any combination of databases or components at a single location or at multiple locations, wherein each database or system includes any of various suitable security features, such as firewalls, access codes, encryption, de-encryption, compression, decompression, and/or the like.
The scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given herein. For example, the steps recited in any method claims may be executed in any order and are not limited to the order presented in the claims. Moreover, no element is essential to the practice of the invention unless specifically described herein as “critical” or “essential.”

System Architecture

FIG. 1 is a block diagram that illustrates a computer system that shows a lottery ticket system 100 for processing lottery ticket transactions, including the acceptance and validation of play entries, for example, in a state lottery. The lottery ticket system 100 includes a Web browser 110 in communication through the Internet 120 with a Web server 130, such as an illustrative lottery server 300, discussed below in conjunction with FIG. 3, an interface 140 for transferring information between Web server 130 and a central lottery computer 150.

According to a feature of the present invention, the lottery ticket system 100 permits a player to enter lottery numbers through Web browser 110 for a ticket purchased by the player. In this fashion, Web server 130 will record the numbers that the player has entered. After the lottery drawing has been conducted, Web server 130 can compare the numbers entered by the player with winning numbers obtained over the Internet. As with conventional lottery systems, the lottery ticket system 100 may automatically notify the player through means well known in the art, such as email, text messaging or the like, that the player’s ticket has won and may optionally include a mechanism for automatically notifying pool participants and regular players of prize winnings.

According to a further feature of the invention, the lottery ticket system 100 preferably permits a player to purchase lottery tickets (i) individually and (ii) to enter the ticket purchased into a pool, whereby the player’s lottery ticket is automatically shared among the pool participants. In a further feature of the invention, the player’s lottery ticket is automatically purchased for the player whenever the probabilistic worth of a ticket exceeds the purchase price. According to a feature of the present invention, the lottery ticket system 100 permits the player to specify the numbers to be played for each game.

The Web server 130 may comprise conventional hardware and software, as modified herein to carry out the functions and operations described below. Web server 130 and central lottery computer 150 transmit digitally encoded data and other information between one another through interface 140. The interface 140 preferably comprises equipment that emulates a standard lottery terminal as is commonly found in a neighborhood lottery vendor’s shop. Communications between interface 140 and either Web server 130 and central lottery computer 150 may be physically facilitated through cable or wireless links on which electronic signals can propagate, and may be embodied, for example, as (i) a dedicated wide area network (WAN), (ii) a telephone network, including the combination of local and long distance wire or wireless facilities and switches known as the public switched telephone network (“PSTN”), or (iii) the Internet. The data and other information transmitted by Web server 130 to the central lottery computer 150 represent the information commonly provided by the vendor’s terminal replaced by the interface. Likewise, the data and other information transmitted by the central lottery computer 150 to the standard lottery terminal may represent play results and an acknowledgement or validation of play information for printing of an official lottery ticket by the lottery terminal, which is now passed along to Web server 130 for later transmission to the player.

Once the central lottery computer 150 has validated and stored the player’s numbers and any activation conditions, in a manner discussed further below, the Web server 130 preferably issues an electronic lottery ticket to the player. A simple lottery ticket is shown in FIG. 2.

As shown in FIG. 2, each lottery ticket 210 indicates the lottery numbers to be played in a field 220, as well as a ticket identification number 230 and the date of the drawing 240. In an alternative embodiment, a lottery ticket may be issued by a standard lottery terminal, but the player may enter the numbers on the ticket through Web browser 110 into Web server 130. Other information such as the drawing date for the ticket may also be selected.

FIG. 3 illustrates a Web server of the preferred embodiment. Web server 300 preferably includes a processor 310 and related memory, such as a data storage device 320. The processor 310 may be embodied as a single processor, or a number of processors operating in parallel. The data storage device 320 and/or a read only memory (ROM) are operable to store one or more instructions, which the processor 310 is operable to retrieve, interpret and execute. The processor 310 preferably includes a control unit, an arithmetic logic unit (ALU), and a local memory storage device, such as, for example, an instruction cache or a plurality of registers, in a known manner. The control unit is operable to retrieve instructions from the data storage device 320 or ROM. The ALU is operable to perform a plurality of operations needed to carry out instructions. The local memory storage device is operable to provide high-speed storage used for storing temporary results and control information.

The data storage device 320 preferably includes a database comprising accounts 350. Players have accounts in database 350 that represent a cash balance capable of being maintained by the player through electronic funds transfer in a secure manner through the Internet, as is well known in the art.

As discussed further below in conjunction with FIG. 6, the data storage device 320 preferably includes software for a lottery process 600. Generally, lottery process 600 receives play information from a player through the Internet, for example, and communicates with the central lottery computer 150 via the interface 140 to validate and store the play information, and thereafter issue an electronic lottery ticket 210 to the player.

As discussed further below in conjunction with FIGS. 4 and 5, respectively, the data storage device 320 preferably includes a ticket database 400 and pooled ticket database 500. The ticket database 400 preferably stores information on each ticket that is currently active in the lottery ticket system 100. The pooled ticket database 500 preferably stores information on each ticket which has been contributed to a pool in the lottery ticket system 100.
In addition, as discussed further below in conjunction with FIGS. 7 through 9, the data storage device 420 preferably also includes a ticket sale transaction process 700, a pooled ticket evaluation process 800 and a winning ticket evaluation process 900. Generally, the ticket sale transaction process 700, shown in FIG. 7, coordinates lottery ticket transactions, such as the acceptance, validation and storage of play entries, including the player’s numbers and identity. The pooled ticket evaluation process 800, shown in FIG. 8, preferably evaluates pending lottery tickets to enter confirmed tickets into a pool. The winning ticket evaluation process 900, shown in FIG. 9, preferably compares the numbers associated with each lottery ticket for a given drawing with winning number combinations to identify winning tickets and associated prize amounts. Pooled ticket evaluation process 800, in conjunction with winning ticket evaluation process 900, determines the amount of the proceeds from the pooled tickets.

FIG. 4 illustrates an exemplary ticket database 400 that preferably stores information on each ticket which is currently active in the lottery ticket system 100. The ticket database 400 maintains a plurality of records, such as records 405-420, each associated with a different active ticket. For each active ticket identified by ticket number in field 425, the ticket database 400 includes an indication of the game type and numbers selected in fields 430 and 435. In addition, the ticket database 400 preferably records the ticket purchase date, drawing date, merchant identifier and whether the ticket has been confirmed in fields 440 through 455, respectively.

FIG. 5 illustrates an exemplary pooled ticket database 500 that preferably stores information on each ticket which is currently contributed to a lottery pool in the lottery ticket system 100. The ticket database 500 maintains a plurality of records, such as records 505-520, each associated with a different active ticket contributed to a particular pool. For each confirmed ticket identified by ticket number in field 525, the pooled ticket database 500 includes an indication of the pool to which the ticket has been contributed in field 530. In addition, the pooled ticket database 500 preferably records the date the ticket was entered into the pool in field 535.

System Operation

The following discussion describes the methods performed by the inventive system. To provide context, the operation of an exemplary, preferred embodiment of software processes 600-900 are described.

As discussed above, system 100 preferably executes a lottery process 600, shown in FIG. 6, to receive play information from a player, for example, through interaction with Web server 130. Lottery process 600 receives information about tickets purchased by the player, either through the player’s data entry, by receiving information about the ticket from Lottery Computer 150 or by direct purchase of the ticket through system 100. As illustrated in FIG. 6, lottery process 600 begins in step 610 by the player authenticating his/her identity, upon logging into Web server 130. In step 620, lottery process 600 determines whether the player wishes to purchase a ticket through Web server 130, or merely wants to provide data to Web server 130 that indicates the purchase of a ticket by conventional means. If a ticket has not yet been purchased, control is transferred to ticket sale process 700. If a ticket has already been purchased by the player, in step 630, lottery process 600 determines whether or not it can obtain data concerning the ticket from Lottery Computer 150.

If data is not available from Lottery Computer 150, in step 640, information concerning the specification of the lottery ticket purchased by the player is provided by the player. The player provides information that is contained in a record of ticket database 400, and includes the ticket number, game type, numbers selected and purchase date. This information is then stored in ticket database 400. This information will be used to confirm the ticket later, as described in connection with step 690.

If data is available from Lottery Computer 150, in step 650, the player provides the ticket identification number, which is then transmitted to Lottery Computer 150. In step 660, Lottery Computer 150 responds by supplying information through interface 140 to Web server 130 concerning the ticket purchased by the player. The supplied information includes the ticket number, game type, numbers selected, purchase date, drawing date and merchant identifier code. In step 670, this information is stored in ticket database 400.

In step 680, Web server 130 generates an electronic ticket 210 comprising the appropriate ticket information including the ticket identification number, game selected and numbers played. This information may be printed by the player as a hardcopy record.

Since tickets are bearer instruments, the physical ticket purchased by the player must be sent in for validation before the actual drawing, in order for the ticket to be confirmed. In step 690, the ticket received from player is validated against the information contained in Lottery Computer 150 to guard against fraud. Alternatively, winning tickets may be redeemed in accordance with winning ticket process 900 to ensure their validity. However, such unconfirmed tickets are not eligible to be submitted for entry into a ticket pool.

As discussed above, Web server 130 preferably executes a ticket sale process 700, shown in FIG. 7, to coordinate lottery ticket transactions, such as the acceptance, validation and storage of play entries, including the player’s numbers. As illustrated in FIG. 7, the ticket sale process 700 begins the processes embodying the principles of the present invention either during step 710, upon an automatic determination that lottery tickets should be purchased, as described below, or via lottery process 600, wherein the player has indicated that he is not entering data for a ticket purchased in the conventional manner, and seeks to initiate a ticket purchase through Web server 130.

Web server 130 will then determine the player’s transaction data during step 720, including the number of games played, game type, numbers selected per game played and purchase time and date. It is noted that in a “quick-pick” implementation, the play numbers will preferably be randomly generated, either by Central Lottery Computer 150 or by Web server 130.

In step 730, ticket sale process 700 will then transmit the required information through interface 140 to Central Lottery Computer 150. In step 740, ticket sale process 700 receives a response from Central Lottery Com-
puter 150 confirming the purchase of the requested ticket. Additionally, Central Lottery Computer 150 will provide information via interface 140 to Web server 130 concerning the ticket purchased. In step 750, ticket sale transaction process 700 will parse the response data provided and will access the ticket database 400 and create an appropriate number of new records in the ticket database 400 for each active ticket. Thereafter, the cost of the ticket is deducted from the player's account during step 760 for each game played, before the ticket number, numbers selected and game type information is stored in the appropriate new record in the ticket database 400. The ticket data is then transmitted to the player during step 770 as an electronic ticket 210 before program control ends.

[0088] In addition, in step 710, the player may specify pre-determined criteria for purchasing a ticket. For example, if the amount of the jackpot prize already exceeds the odds of winning the jackpot times the cost of the ticket, then the probabilistic value of the ticket exceeds the cost, and the player may choose to have a ticket automatically purchased and entered in the ticket database 400. Players may choose to purchase tickets automatically via a periodic basis, and may also specify whether tickets automatically purchased should be entered into a pool.

[0089] At the request of a player, Web server 130 preferably executes a ticket pooling process 800. As shown in FIG. 8, during step 810 Web server 130 ensures that the ticket the player seeks to enter into a pool is confirmed, as discussed in lottery process 600 above. If the player is submitting a confirmed ticket, in step 820 Web server 130 queries which pool the player wishes to submit the confirmed ticket into. Information concerning the pooled ticket is entered into pooled ticket database 500. In step 830, an account is created for each pool in account database 350 and winning ticket evaluation process 900 is invoked for all pooled tickets in database 500. Finally, in step 840, the accumulated winnings from all pooled tickets collected during winning ticket evaluation process 900 is transferred out from the pool account to each of the pool participant's accounts. The distributions are made in a pro-rata share according to the number and value of the tickets pooled, and the pool account is then deleted from account database 350. In a preferred embodiment, pool participants are notified and provided with a report of the activity generated by the pool.

[0090] Web server 130 preferably executes a winning ticket evaluation process 900, shown in FIG. 9, to identify winning tickets and associated prize amounts. As illustrated in FIG. 9, the winning ticket evaluation process 900 initially accesses the set of winning numbers during step 910 and the ticket database 400 during step 920. A test is then performed during step 920 to determine if the tickets are confirmed, as explained above in connection with lottery process 600. If a ticket in ticket database 400 is confirmed, the ticket information is processed via Lottery Computer 150 during step 930 to confirm that the ticket is a winning ticket. Alternatively, such winning ticket confirmation may be skipped in favor of merely redeeming the winning tickets during step 940. The ticket is a physical ticket, the redemption most likely will also have to be processed manually. If it is determined during step 930 that the ticket was not a winning ticket, the associated record in the ticket database 400 may be deleted.

[0091] Next, the proceeds from the winning ticket are processed. A test is performed during step 950 to determine whether the ticket is a pooled ticket. If the ticket is pooled, an account created for the pool is credited with the proceeds during step 970. If, however, it is determined during step 950 that the ticket was not contributed to a pool, then in step 960 the proceeds are credited to the player's account. In a preferred embodiment, during step 960, the player is notified that they have won the lottery.

Software on Media

[0092] In the specification, the term "media" means any medium that can record data therein. FIG. 10 illustrates examples of recording media.

[0093] The term "media" includes, for instance, a disk shaped media for 1001 such as CD-ROM (compact disc-read only memory), magneto optical disc or MO, digital video disc-read only memory or DVD-ROM, digital video disc-random access memory or DVD-ROM, a floppy disc 1002, a memory chip 1004 such as random access memory or RAM, read only memory or ROM, erasable programmable read only memory or E-PROM, electrical erasable programmable read only memory or EEPROM, a writeable card-type read only memory 1005 such as a smart card, a magnetic tape, a hard disc 1003, and any other suitable means for storing a program therein.

[0094] A recording media storing a program for accomplishing the above mentioned apparatus may be accomplished by programming functions of the above mentioned apparatuses with a programming language readable by a computer 1000 or processor, and recording the program on a media such as mentioned above.

[0095] A server equipped with a hard disk drive may be employed as a recording media. It is also possible to accomplish the present invention by storing the above mentioned computer program on such a hard disk in a server and reading the computer program by other computers through a network.

[0096] As a computer processing device 1000, any suitable device for performing computations in accordance with a computer program may be used. Examples of such devices include a personal computer, a laptop computer, a microprocessor, a programmable logic device, or an application specific integrated circuit.

[0097] Having thus described at least illustrative embodiments of the invention, various modifications and improvements will readily occur to those skilled in the art and are intended to be within the scope of the invention. Accordingly, the foregoing description is by way of example only and is not intended as limiting. The invention is limited only as defined in the following claims and the equivalents thereto.

We claim:
1. An apparatus for facilitating player participation in a lottery, said apparatus comprising:
a Web server connected to the Internet containing software that, when executed by said Web server, causes said Web server to:
provide the player with access to an account;
securely electronically transfer funds between the account and a player's source of funds; and
permit said player to participate in a lottery pool wherein said lottery tickets entered and winnings from said tickets are shared among pool participants.

2. The apparatus of claim 1, wherein said software further causes said Web server to permit said player to enter lottery numbers purchased by said player.

3. The apparatus of claim 1, wherein said software further causes said Web server to determine if a ticket won.

4. The apparatus of claim 4, wherein said software further causes said Web server to notify the player of an amount that said player won.

5. The apparatus of claim 1, wherein said software further causes said Web server to automatically transfer a player’s winning share into the account.

6. The apparatus of claim 1, further comprising a computing interface coupled to said central state lottery computer and to said Web server that submits lottery ticket numbers to said central lottery computer and provides purchase confirmation information of lottery tickets purchased to said Web server.

7. The apparatus of claim 6, wherein said software further causes said Web server to automatically purchase a predefined number of tickets for said pool participant.

8. The apparatus of claim 7, wherein said software further causes said Web server to automatically purchase tickets for said pool participant when the probabilistic worth of a ticket is more than a price to purchase said ticket.

9. The apparatus of claim 1, wherein said pool consists of a single player.

10. A method of playing a lottery, said method comprising:

    establishing an account for receipt and withdraw of electronic funds;

    purchasing a lottery ticket; and

    entering said ticket in a lottery pool, wherein said lottery tickets entered and winnings from said tickets are shared among pool participants.

11. The method of claim 10, wherein entering the ticket comprises entering lottery numbers of a ticket purchased by said player.

12. The method of claim 11, further comprising automatically determining if a ticket won.

13. The method of claim 12, further comprising automatically notifying the player of an amount that said player won.

14. The method of claim 10, further comprising automatically transferring a pool participant’s winning share into the account.

15. The method of claim 10 wherein the ticket is automatically purchased.

16. The method of claim 15, further comprising automatically purchasing a predefined number of tickets for said pool participant.

17. The method of claim 16, further comprising automatically purchase tickets for said pool participant when the probabilistic worth of a ticket is more than a price to purchase said ticket.

18. An electronic media containing a program software product, that, when loaded and executed on a general purpose computer, causes the computer to:

    establish an account for receipt and withdraw of electronic funds;

    permit a player to enter lottery numbers of a ticket purchased by said player;

    permit a player to enter said ticket in a lottery pool, wherein said lottery tickets entered and winnings from said tickets are shared among pool participants;

    determine if a ticket won; and

    notify the player of an amount that said player won.

19. The electronic media of claim 18, wherein the program software product contained thereon, when loaded and executed on a general purpose computer, causes the computer to purchase a lottery ticket for the player using funds from the account.

20. The electronic media of claim 18, wherein the program software product contained thereon, when loaded and executed on a general purpose computer, causes the computer to perform one or more of the following tasks:

    transfer a pool participant’s winning share into the account;

    purchase a predefined number of tickets for said pool participant; and

    purchase tickets for said pool participant when the probabilistic worth of a ticket is more than a price to purchase said ticket.

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