

**WAGER CREDIT MANAGEMENT SYSTEM
AND METHOD OF USE**

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001]

The present application for patent claims priority through the applicant's prior provisional patent applications as follows:

1. CREDIT WAGERING SYSTEM WITH LOAN AND FACTORING AND METHOD OF USE, application number 62/703,781, filed July 26, 2018;

2. CREDIT WAGERING SYSTEM WITH LOAN AND FACTORING AND METHOD OF USE, application number 62/711,356, filed July 27, 2018; and

3. CREDIT WAGERING SYSTEM WITH LOAN AND FACTORING AND METHOD OF USE, application number 62/814,407, filed March 6, 2019; which provisional applications are hereby incorporated by reference in their entirety.

This application also incorporates by reference Applicant Ellis' prior U.S. Patent Nos. 9,711,004, issued July 18, 2017, and 10,235,837, issued March 19, 2019; provided that if any of these prior applications or patents are in any way inconsistent with the present application (including without limitation any limiting aspects), the present application will prevail.

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FIELD OF INVENTION

[0003] The technology of the present application relates to a wager credit management system and method, and more particularly to a system and method for the requesting, approving, processing, and/or managing of credit associated with wagering activity, including one or more of loan transactions, loan warranting services, associated fees, activity tracking,

activity reporting, credit approval throttling, fund advancement throttling, credit account packaging and transfer, automated collections, responsible gaming, and the like.

CERTAIN ASPECTS OF THE BACKGROUND AND INVENTION

- [0004] Traditionally, placing wagers on gaming devices involved submitting tangible currency such as bills and coins at the time the wagers were placed. If a player had no cash or coins, the player had to stop playing, or otherwise temporarily leave the gaming area to obtain additional currency. Casino (which is defined herein to include any wager gaming operator or provider) credit such as cashing checks and issuing markers developed as ways for players to get cash, on credit, to continue playing. The problems with traditional casino credit were many. The player, once given the cash issued on credit, would have to physically take the money to the gaming device to play. This allowed the player to take the cash and not use it to play at the gaming device. The player could simply pocket the cash and walk out of the casino. The casino bore the risk and associated costs of collecting if the player failed to repay a marker, or if the player's check bounced. A similar problem arose if the player elected to cash out winnings without first making good on obligations such as checks or markers. Further problems arose relating to delays associated with handling and managing traditional credit, such as cash flow shortages resulting from the period of time such credit remained uncollected.
- [0005] Further problems arose relating to the inclusion of cash at one or more phases of the gaming process. The carrying of cash to and from the casino sometimes increased the occurrence of theft from players, which resulted in one or more of reducing the quality of the casino experience for patrons, increasing costs to the casino for liability coverage and security, reducing the number and frequency of return player visits, and impacting the reputation of the casino with respect to potential customer perception, community perception, or both. This had one or more of a revenue impact on the casino, a financial and psychological impact on players, and a negative impact on the ability of casinos to foster a positive community perception that might have assisted in helping to promote pro-casino local, state, and national laws and regulations, as well as pro-casino zoning decisions.
- [0006] In addition, the absence of easily obtained wager credit typically placed an added burden on players to procure and manage their cash carry. Players first had to consider when and where to obtain cash, and also consider their potential stake for the relevant gaming period

to avoid having to return to a cash provider. The cash carry also had to be managed by the player while engaged in gaming, including the submitting of cash to devices, tables, or sports book, the retrieving of cash from devices, tables, or sports book, and the continued need to monitor cash not being played to avoid loss, such as by dropping bills or coins. This overhead sometimes resulted in a degraded player experience, along with an increase in player anxiety due to the amount of cash carried, the risk of losing a portion of the cash, or both.

- [0007] For communities, the cash nature of the casino gaming environment sometimes placed an increased burden on community services, such as the demand placed on law enforcement, on the courts, or both. With the level of crime resulting, at least in part, from the presence of cash inside and outside the casino, the increased presence of police, both for crime prevention and for response criminal activity, increased overall cost of services, which impacted both the burden on taxpayers as well as the availability of such resources to focus on other more pressing criminal activity. Similarly, courts too were sometimes impacted, facing an increased caseload as the number of arrests increased.
- [0008] The absence of easy player access to wager credit and the resulting involvement of large quantities of cash in the traditional gaming experience further burdened the casino operator. Casinos often had to handle and manage very large cash drops in order to ensure they could cash out players, which involved various labor costs, including, for example, costs associated with moving cash to and from the casino, as well as around the casino and among properties. A further disadvantage was the increased risk of casino theft, along with the resulting impact on the cost of security to prevent such theft, both during the transport of cash to and from the casino, as well as within the casino.
- [0009] Casinos and card clubs are vulnerable to money laundering and other financial crimes because of the nature of these operations. These gaming institutions are fast-paced, cash-intensive businesses that often provide a broad array of financial products and services, some of which are similar to those provided by depository institutions and money services businesses. Moreover, gaming institutions serve a diverse and transient customer base about which they may have relatively little knowledge. The player could structure transactions to avoid certain reporting thresholds.
- [0010] Country- and state- specific regulatory requirements have directly impacted casino's ability to extend and the burden of managing credit. For example, in the U.S., casinos became subject to anti-money laundering regulations promulgated under the Bank

Secrecy Act (BSA) in 1985. Federal law requires casinos to report currency transactions over certain threshold amounts, such as \$10,000, conducted by, or on behalf of, one person, as well as multiple currency transactions that aggregate to over certain legislated threshold amounts in a single day. These transactions are reported on reports, such as, for example, a Currency Transaction Report by Casinos (CTRC) form. In addition, casinos are required to report suspicious transactions (or patterns of transactions) conducted or attempted by, at or through the gaming establishment. These laws were passed to safeguard against money laundering and other financial crimes. Historically, it was both labor intensive and systems intensive to track, retrieve, analyze, and report such transactions to the extent it was possible to do so reliably.

- [0011] To comply with this U.S. law, casinos must not only use all available information to detect and report the transactions themselves, but also obtain and include the personal identification information about the individual conducting the transaction such as a Social Security Number, as well as a driver's license or other government issued document, in the filed report. This requirement applies whether individuals conducting the transactions are wagering on behalf of themselves or someone else. Historically, it has been difficult for casinos to detect suspicious activity and CTRC report triggering events. Even when such activity and events were detected, it was difficult and often manually intensive to collect evidence surrounding such events, collect the necessary player-related information, prepare the required reports, and file the required reports. Often such challenges resulted in reports not being filed, which in certain cases resulted in significant legal and financial consequences for casinos failing to use all available information and file such reports.
- [0012] In the U.S., nearly half of the filings made by casinos reported suspicious activities characterized as structuring or minimal gaming. The reports frequently described activities involving chip, jackpot and token redemptions, which customers may have structured to avoid currency transaction reporting requirements. This is called "structuring." U.S. federal law makes it a crime to break up transactions into smaller amounts for the purpose of evading the reporting requirement, and this may lead to a required disclosure from the casino to the government.
- [0013] A structured transaction can include, for example, situations such as the following. The player opens a line of credit with the casino for \$27,000. The player knows the casino will be required to file a Currency Transaction Report if the player makes a payment with

over \$10,000 in currency on a single day. To evade a Currency Transaction Report being filed, the player makes \$9,000 payments on the line of credit over different gaming days. Historically, challenges in one or more of controlling when to extend and the tracking of wagering credit has made it difficult for casino's to maintain regulatory compliance under U.S. laws, as well as laws in other countries.

- [0014] With the requirement of using all available information to detect and report, significant burdens were placed on systems not designed for such optimized data collection and analysis, which could result in increased and inefficient bandwidth usage, excessive data storage demands, wasteful proliferation of computing devices, unsynchronized data and data integrity issues, and the like.
- [0015] The Applicant further believes he has discovered certain disadvantages and drawbacks of gaming even when implemented with credit lines as described above. Costs are incurred in association with determining whether to grant a credit line to a player; these costs may take the form of a fee for a credit report, the time and effort of casino employees to process credit applications, the time and effort involved in an on-the-spot decision by an employee to grant a credit line without an advance application, and even the expense of establishing and maintaining an electronic system that can make credit determinations without employee involvement. The casino may be unwilling or unable to serve as a source of funds for players in connection with granting credit lines; this problem becomes worse as the number of players requesting credit lines increases. The casino may not wish to be involved in any way with efforts to obtain repayment, so as to avoid any unpleasantness between the casino and its customers.
- [0016] In recent years, casinos have faced increased pressure to foster, support, and enforce responsible gaming. Many casinos have taken proactive approaches in trying to address responsible gaming, which approaches have often proven to be costly, limited in their effectiveness, or both. For example, in many jurisdictions, such as Australia, cash dispensing technologies such as automated teller machines are required to be located at a minimum distance from the gaming floor. Among other things, it was believed that by requiring players to leave the gaming floor when they are in need of advancing funds, they would be less likely to engage in irresponsible gaming behavior, having to walk away from the gaming environment for some period of time. This approach to responsible gaming has many disadvantages, including disrupting the responsible player's gaming experience, reducing cash velocity even when such reduction is not necessary or useful,

requiring players to leave a particular machine to which they have developed an affinity, and questionable efficacy as the player is not prevented from returning and gambling irresponsibly. In addition, many approaches to encouraging and enforcing responsible gaming employ the personal involvement of casino personnel, which can be costly, subjective, embarrassing to the player, and inefficient.

BRIEF SUMMARY OF SOME ASPECTS OF THE DISCLOSURE

- [0017] As part of the present invention as a whole, the inventors believe that they discovered many of the problems and issues with the prior art discussed in the background section above. Further, in an effort to facilitate cashless gaming while ensuring one or more of responsible gaming, the timely extension of credit, that the player makes good any obligations to the casino, and regulatory compliance, the Applicant has developed a system in which funds are automatically advanced either directly or from a wager account to a gaming device based, at least in part, on a credit line of the player. The credit line may be approved in advance, for example by the player submitting a credit application in person, on-line, via the mail, or the like. Or the credit line may be approved while the player is in the casino based on a written application submitted at that time, an oral request by the player, an on-line application, an electronic request by the player while using a gaming device, action by a casino employee even if not specifically requested by the player, or the like.
- [0018] In some embodiments, once credit has been extended to a player, any cash submitted by the player and any of the player's winnings may be selectively used to pay down the wager account, including at the direction of the casino based on, for example, certain automated rules, at the discretion of the player, or a combination thereof. In some embodiments the player is encouraged to apply winnings or to insert cash to pay down the wager account.
- [0019] In some embodiments, distribution of winnings by a gaming device to the player, for example in the form of cash or a cashout ticket, is disabled until the wager account has been repaid. In other embodiments, a distribution of at least a portion of the winnings is provided to the player when a wager account balance remains unpaid. In some embodiments, upon the occurrence of certain events, the passage of pre-determined periods of time, or both, a credit account is paid down, at least in part, through authorized automated direct debiting of a player's bank account. This expedited paydown of credit accounts can reduce the period of time where the casino might otherwise have to maintain credit accounts with unpaid balances, reducing resulting cash flow shortages.
- [0020] The collecting of relevant personal information at the time of submitting a request for credit, combined with monitoring and tracking of credit advances and gaming activity, can provide improved identification of events triggering reporting requirements related to suspicious activity and currency transaction amounts. In some embodiments, credentials,

such as, for example, a driver's license can be scanned and submitted as part of an electronic application process, allowing for the storage of the driver's license image and data which may be used in submission as part of an activity or transaction report to a regulatory authority. In some implementations, the method and rules for the extension of credit, including, for example, the timing of and amount of extensions of credit, as well as the controls for rule-based automated pay down of wager and credit accounts can identify, prevent, or both, suspicious activities and reportable transactions.

[0021] Extending a credit line to a player and funding a wager account by advances against the credit line may be implemented, for example, in a single gaming device such as a slot machine, a video poker machine, or the like. Or a server may extend the wager account by electronic communication across two or more devices so that the player could use some of the credit line at one slot machine, some at another slot machine, a video poker machine, an electronic roulette machine, or the like. All such gaming devices may be located at various points within a casino or they may be located at more than one casino. The server may include information respecting credit lines from many players, and when any one of these players commences play at a gaming device that is in communication with the server, the player is asked to provide some form of identification or password to enable access to that player's credit line on that device. In some instances, these user interfaces are familiar to players, such as touch screen interfaces provides via a SMIB, which can reduce resistance or aversion to technology adoption that might otherwise exist for certain demographics.

[0022] In some embodiments, tiered credit approval amount thresholds throttle the timing of credit approval decisions, which can allow for an increased ability for the casino to include additional activity, including gaming activity and selective pay down activity, and financial information in credit approval decisions for the extension of increased credit amount requests. In some instances, these credit approval tiers can be part of a responsible gaming service, controlling the access to credit and thereby allowing the casino to avoid refusing to advance funds solely on the basis of the player's behavior. In some applications, this can also provide benefit to the player as the ease and real-time nature of the system allows the player just-in-time approval and access to a line of credit without the player obtaining an initial large line of credit that could negatively impact other aspects of that player's financial state or credit worthiness.

- [0023] In addition, in certain embodiments, a responsible gaming application service can use these or other amount thresholds to provide one or more of credit approval delay periods, credit access delay periods, or credit amount throttling. This can, in some embodiments, achieve the desired goal of controlling gaming behavior for responsible gaming purpose without the undesirable consequence of making the player seek out a cash advance machine or cashier to obtain additional funds when desired where there is no responsible gaming issue. In some instances, this can result in an improved gaming experience, as well as improved velocity of cash entering the casino floor while simultaneously improving responsible gaming management.
- [0024] In some instance, funds are advanced directly from the credit line or credit account to the gaming machine without first creating a wager account or wallet for tracking balances or amounts in a wager account or wallet. In some implementations, the line of credit account is available for withdrawal from, or pay down through, an integrated banking service, such as an online banking app. In some instances, automatic advances and paydowns occur between a gaming machine interface, the credit account, and a banking institution.
- [0025] Additional benefits and advantages can include the ability to obtain credit request approvals in advance, during play, or both, thus improving on floor funds management, reducing friction for player fund access, and increasing velocity of cash entering the casino floor. This electronic-based method of credit transaction facilitation can reduce the cash management overhead costs as well, including one or more of reducing or eliminating the depositing of funds, reducing labor demands such as cage, vault, drop, and count teams, floor attendants, security personnel, and audit personnel, reducing the need for count machines and bank machines, reducing the costs associated with paper management, and reducing interest to the casino associated with large cash floats.
- [0026] A further advantage of providing easily accessible managed wager credit is the reduction or elimination of players needing to carry cash. By this reduction or elimination in the cash carry, incidence of theft of player funds can be reduced, resulting in one or more of improving the quality of the casino experience for patrons, decreasing costs to the casino for liability coverage and security, increasing the number and frequency of return player visits, and improving the reputation of the casino with respect to potential customer perception, community perception, or both. This can have a positive revenue impact on the casino, reduce player losses due to theft, and foster a positive community perception

that can promote pro-casino local, state, and national laws and regulations, as well as pro-casino zoning decisions.

- [0027] In addition, the presence of easily obtained wager credit can reduce the burden on players by reducing or eliminating the need procure and manage a substantial cash carry. Players can be free from having to consider where to obtain cash, and also having to consider the potential stake needed in advance for the relevant gaming period. Further, the presence of easily obtained managed wager credit can reduce or eliminate the player burden of managing the cash carry while engaged in gaming, including the inconvenience of submitting cash to devices, tables, or sports book, retrieving of cash from devices, tables, or sports book, and the continued need to monitor cash not being played to avoid loss, such as by dropping bills or coins. The reduction or elimination of this overhead can improve the player experience, along with decrease player anxiety that might otherwise due to, at least in part, to the amount of cash carried, the risk of losing a portion of that cash, or both.
- [0028] The reduction to the cash-only nature of the casino gaming environment can have additional advantages and benefits applicable to communities. The reduction in the cash nature of the activity can reduce the burden on community services, such as the demands placed on law enforcement, on the courts, or both. With a reduced level of due, at least in part, to the reduced presence of cash inside and outside the casino, required police presence can be reduced, reducing the overall cost of services, which can reduce both the burden on taxpayers as well as improve the ability for such resources to focus on other more pressing criminal activity. Similarly, courts can experience a decreased caseload as the number of arrests decline.
- [0029] Source of funds tracking can be improved by, in certain instances, incorporating questions or source checks into the credit request and approval process, thus reducing the casinos exposure for failing to report source of funds violations. Further, such source of funds issues can be addressed in advance of arrival at the casino, improving the player experience and reducing the cost to the casino of manually managing such issues on the casino property.
- [0030] In some embodiments, the casino enters into a loan warranting arrangement with a commercial entity (the warrantor) that takes a proprietary interest, such as an equity position in a portfolio of one or more advances made to players, or a partial or complete ownership interest in one or more credit accounts, credit account receivables, or both. In

some embodiments, such warranting of can provide to the casino operator one or more of accelerated cashflow, guaranteed minimum advance returns, or both. Additional benefits to the casino operator can include one or more of; a) managing of at least some player account status communications, such as, for example, notices, statements, demand notices of adverse action, collections, legal notices, and the like, b) real-time or near- real-time transactional online reporting, oversight, or both, c) treasury management and reporting, and d) credit account settlement and financial accounting support.

[0031] In some embodiments, the wager credit management system provides for a tiered credit structure. This tiered structure can one or more of; a) for given advance, mitigate the risk associate with, at least in part, one or more of fraud, money laundering, or issues associated with bank secrecy laws, b) enable valued and qualified players to increase their credit limit subject to appropriate and additional underwriting, taking into account, among other factors, player history and overall value status to the casino operator, and c) mitigate adverse or irresponsible player behavior that might otherwise jeopardize one or more of a player's personal financial well-being, the relationship between the player and the casino operator, or both.

[0032] In some embodiments, the wager credit management system and method can make available one or more of a variety of warrantor revenue sources such as, for example, collecting credit application fees from the player or the casino operator, collecting warranty fees, whether such warranty fees are collected directly from the casino, as a percentage of advanced principal funds recovered, or indirectly through credit account purchase price discounts, collection of credit application scoring fees from the casino operator, and the like.

[0033] A wager credit management system and method as disclosed in this application can provide one or more of a variety of technical advantages including, but not limited to, reducing the memory storage and bandwidth demands through targeted tracking of credit activity during the credit approval phase and at near-realtime or in realtime during the fund advancement phase during game play, improving privacy and security of personal information through reuse of collected information with limited information proliferation, improving system user interface efficiencies through the streamlined application interface and rule-based credit management features, reducing multi-system processor load through the introduction of real-time or near real-time, at-game, credit management, and the like.

[0034] It is to be understood that this Brief Summary recites some aspects of the present disclosure, but there are other novel and advantageous aspects disclosed in this specification. They will become apparent as this specification proceeds. In this regard, the scope of the invention is to be determined by the claims as issued and not by whether a claim addresses any or all issues noted in the Background or includes a feature included or not included in this Brief Summary.

BRIEF DESCRIPTION OF THE DRAWINGS

- [0035] A further understanding of the nature and advantages of the embodiments may be realized by reference to the following drawings. In the appended figures, similar components or features may have the same reference label. Further, various components of the same type may be distinguished by following the reference label by a dash and a second label that distinguishes among the similar components. If only the first reference label is used in the specification, the description is applicable to any one of the similar components having the same first reference label irrespective of the second reference label. The applicant's preferred and other embodiments are disclosed in the accompanying drawings in which:
- [0036] Figure 1 is a block diagram of participant and system relationships for wager credit management and transfer;
- [0037] Figure 2A is a block diagram of the front-end components of a credit wagering management system supporting the relationships and activities of Figure 1;
- [0038] Figure 2B is a block diagram of the systems integration framework of a credit wagering management system supporting the relationships and activities of Figure 1;
- [0039] Figure 3 is a block diagram of the back-end components of the wager credit management system of Figure 2;
- [0040] Figure 4 is a block diagram of one example of a back-end software architecture that can be deployed in the environments of FIG. 2;
- [0041] Figure 5 is a block diagram of the services layers of the wager credit management system of Figure 2 and Figure 3;
- [0042] Figure 6 is a block diagram of the services and engines of the services layers of Figure 5 performing the various operations of the wager credit management system of Figure 2 and Figure 3;
- [0043] Figure 7A is a flowchart of a method for during-play processing of credit applications and approvals by the credit application services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0044] Figure 7B is a flowchart of a method for allocating fees among the participants of Figure 1;

- [0045] Figure 7C is a flowchart of a method for using an external service for the credit application scoring of Figure 7A by the credit application services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0046] Figure 8 is a flowchart of a method for in-advance processing of credit applications and approvals by the credit application services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0047] Figure 9 is a flowchart of a method for an in-advance approval of credit applications by the credit application services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0048] Figure 10 is a flowchart of a method of responsible gaming approvals by the responsible gaming services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0049] Figure 11 is a flowchart of a method of tiered approval credit thresholds in the wager credit management system of Figure 2 and Figure 3;
- [0050] Figure 12 is a flowchart of a method of intermittent credit account reconciliation by the account services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0051] Figure 13 is a flowchart of a method of monitoring for credit transaction report triggering events by the compliance services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0052] Figure 14 is a flowchart of a method of monitoring for structure transactions by the compliance services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0053] Figure 15 is a flowchart of a method of monitoring for minimal gaming conditions by the compliance services layer of Figure 5 in the wager credit management system of Figure 2 and Figure 3;
- [0054] Figure 16 is a wireframe of an account access view of the touch display of Figure 2;
- [0055] Figure 17 is a wireframe of an account authorization view for authenticating credit account access in the wager credit management system of Figure 2 and Figure 3;
- [0056] Figure 18 is a wireframe of the credit account amount selection and use view of the wager credit management system of Figure 2 and Figure 3;

- [0057] Figure 19 is a wireframe of the credit line request view of the wager credit management system of Figure 2 and Figure 3;
- [0058] Figure 20 is a wireframe of the credit request authorization, fee, and terms acceptance view of the wager credit management system of Figure 2 and Figure 3;
- [0059] Figure 21 is a screen capture mobile app credit request view of the wager credit management system of Figure 2 and Figure 3;
- [0060] Figure 22 is a screen capture mobile app credit approval view of the wager credit management system of Figure 2 and Figure 3;
- [0061] Figure 23 is a screen capture mobile app credit account view of the wager credit management system of Figure 2 and Figure 3;
- [0062] Figure 24 is a screen capture mobile app credit advance view of the wager credit management system of Figure 2 and Figure 3;
- [0063] Figure 25 is a screen capture mobile app fee acceptance view of the wager credit management system of Figure 2 and Figure 3;
- [0064] Figure 26 is another screen capture mobile app fee acceptance view of the wager credit management system of Figure 2 and Figure 3;
- [0065] Figure 27 is a screen capture mobile app funds transfer confirmation view of wager credit management system of Figure 2 and Figure 3;
- [0066] Figure 28 is a screen capture online banking view with an integrated line of credit managed by the wager credit management system of Figure 2 and Figure 3;
- [0067] Figure 29 is a block diagram of a computer system suitable for implementing the present systems and methods of FIG. 1;
- [0068] Figure 30 is a table of an example tier one initial score-to-credit approval schedule for use in the approval process of Figure 7C;
- [0069] Figure 31 is a table of an example tier two score-to-credit approval schedule for use in the approval process of Figure 7C;
- [0070] Figure 32 is a table of an example tier three score-to-credit approval schedule for use in the approval process of Figure 7C; and
- [0071] Figure 33 is a table of an example tier four score-to-credit approval schedule for use in the approval process of Figure 7C.

**DETAILED DESCRIPTION OF THE PREFERRED AND OTHER
EMBODIMENTS**

- [0072] Broadly, this application is directed to a wager credit management system and method of use. The methods disclosed in the present application can be implemented in many different ways, including through software, hardware, firmware, remote processing, or the like, or a combination thereof. The method is directed to use with a gaming device, but the term “gaming device” includes all machines for the conduct of gaming and should not be limited to slot machines and video poker machines. “Gaming device” may include any device used in gaming that receives, dispenses, or transfers a medium of exchange, such as coins, cash, vouchers, tickets, gaming chips, or other fungible value media, or electronic representations thereof, including cryptocurrencies. This includes chip and ticket handling machines that convert gaming chips, tickets, game credits, or electronic representations thereof, into currency or cryptocurrency. Moreover, this application specifically contemplates use of the present method and system with gaming tables, and all wager gaming, including specifically mobile wager gaming, and table games, sports book, and racing applications, such as horse and dog racing for example, or portions of any such activity such as by providing an automated wager gaming money or value advancing and monitoring application for use in conjunction with wager gaming.
- [0073] Also, it is contemplated that the present method can be implemented at one or more gaming devices. That is, the method can be implemented at a single gaming device, a plurality of gaming devices operating separately, a plurality of networked gaming devices, a plurality of gaming devices networked with a server controller, a gaming device in combination with a mobile device, or any combination or variation thereof. For purposes of this application, the term “casino” includes conventional casinos as well as all other providers of any wager gaming and wager gaming system, including online gaming and remote device gaming.
- [0074] In some embodiments a wager credit management system includes the collecting of a loan origination fee, loan transaction fee, or the like that the player pays as part of an initial application for a credit line. The amount of this fee may be different depending on various conditions, such as, for example, whether the player submits an application on-line or on paper, whether the application is made ahead of time or at the casino, whether the application can be processed electronically or must be handled by casino employees, and so on. In some situations, such as an electronic request through a gaming device while the

player is actually using the gaming device, the fee may be lower or higher than other loan fees or may be waived entirely.

[0075] In some embodiments, the casino enters into a loan warranting arrangement with a commercial entity (the warrantor) that takes a proprietary interest, such as a partial or complete ownership interest, in one or more credit accounts, credit account receivables, or both. In some instances, the warrantor acquires an equity interest as a percentage of advances made to players during a certain period, such as a 24-hour period. This can be accomplished by, for example, the transfer of funds to the casino operator equal to a percentage, such as a discount in some embodiments, of one or more new advance originations initiated in the defined period. In return, the warrantor can receive a percentage of the first-recovered repayments of advanced amounts up to the previously funded amounts from that defined period (the warranty guarantee amount), plus an additional percentage amount (the warranty service amount). In some embodiments, the warranty service fee is received by the warrantor on scheduled basis over a certain collection period.

[0076] In some instances, the warrantor can participate in one or more of solely or jointly reviewing and approving the casino's method for establishing credit lines before issuing credit to a player. In some instances, the warrantor requires that it participate in the credit approval process, for example, by doing the approval itself, through another entity, or jointly. In some cases, approval is performed, at least in part, electronically or in some other manner. In some embodiments, the warrantor can use one or more of a variety of known and obtained credit-related attributes to determine credit-worthiness and whether to extend some amount of credit to a player. When a player uses a certain amount of credit and loses the money in wagering, the warrantor can hold an equity position in the receivable for that amount, or in the alternative, take partial or complete ownership in the receivable. Reconciliation between the casino and the warrantor can take place from time to time, for example daily or hourly, and can involve one or more of the following:

1. Detail and total of all credit advanced to one or more players during the reconciliation period.
2. Detail and total of all credit line paydown events by one or more players, such as through automated paydowns at the time of machine cash out, or discretionary paydowns through submissions of payment at a game machine, cash machine, funds transfer enabled app, or cage.

3. The difference between these amounts can equal the amount advanced to the casino (for example via ACH or some other electronic method) or, in the case of collections exceeding advances, returned to the warrantor.

[0077] For example, assume there are two players, Player #1 and Player #2, whose accounts are part of the warranting account set. Further on a given day Player #1 uses \$1,000 of his/her credit line and loses all of it at the machine. Meanwhile, Player #2 uses \$500 of his/her credit line, hits a jackpot for \$750, and presses "cash out" thereby automatically repaying the \$500 draw on his/her credit line and receiving the balance of \$250 in cash. At reconciliation, the warrantor would reimburse the casino for \$1,000 because that is the amount advanced to the casino (\$1,000 for Player 1 plus \$500 for Player 2) net of the \$500 repaid by Player #2. If Player #1 returns the next day, draws another \$500 on his/her line of credit, hits a \$2,000 jackpot and presses "cash out", the \$1,500 drawn on his/her credit line (\$1,000 on the first day plus \$500 on the next day) is automatically repaid and the player receives the balance of \$500 in cash. At reconciliation, the casino would reimburse the warrantor for \$1,000 on the account of Player #1 because that is the net amount received back from that player by the casino (\$1,000 on the first day plus \$500 on the second day minus \$500 repaid by the player on the second day).

[0078] In some embodiments, if the funds for the credit line are provided by another party such as a warrantor either in advance of the granting of the credit or after the credit has been extended, the transaction is reported to that party. This report can include the amount of the credit and identity of the player or players, and any other information desired. In some instances, the player's or players' obligations may be purchased from the casino at a discount. In some embodiments, fees are charged to one or more player at one or more stages of the process.

[0079] In some embodiments, a loan transaction fee may be charged each time the player requests an advance, such as, for example, to a wager account, against the player's credit line. This can be done electronically, for example by a message displayed on a screen of a gaming device to the effect that a request for a credit advance of, for example, \$100 will result in a debit of \$103 from the player's credit line even though only \$100 will be made available at the gaming device for the player to use in wagering. The fee may be a fixed amount for each request, a percentage of the credit line, a percentage of the amount being advanced, or the like.

- [0080] Referring now to Figure 1, in some embodiments, various participants and systems can interact as part of the applying for, extending, transferring, and managing credit in connection with the method and operation of the wager credit management system, particularly where loan warranting is involved. In some instances, a casino operator 105 operates one or more gaming devices operable to receive wagerable funds from a wager account 115. A player 120 can withdraw funds, access funds, or both in the wager account 115 through one or more interfaces, such as, for example, the gaming device 115 primary interface, through a secondary gaming device interface, through an end user credit management app 125 that runs on, for example, a mobile device or a casino device, or the like.
- [0081] In some implementations, the wager account 115 can be funded, at least in part, from one or more credit accounts 130, can add to or pay down the balance in the one or more associated credit accounts 130, or both. This adding or paying down of the credit account 130 can be effected by player 120 at player's discretion via interfacing with the end user credit management app 125, the gaming device 110 interface, or both. In some instances, the adding or paying down of the credit account 120 occurs, at least in part, automatically upon the occurrence of certain events, such as, for example, an attempted cash out event. In some embodiments, the one or more credit accounts 130 are associated with a bank account 135 which can be accessed via a banking app 140 displaying credit account information 2800 (e.g., see Figure 28). In some instances, one or more credit accounts 130 are directly accessible via the banking app 140.
- [0082] In some embodiments, one or more warrantors 145 have a proprietary interest, such as a partial or complete ownership interest in accounts receivables associated with one or more credit accounts, and can assist with, take responsibility for, or both, collection of such accounts receivables. In some instances, the warrantor 145 participates in decision involving the extension of credit, collection of accounts receivables, or both. One or more secondary market credit buyers 150 may purchase, or otherwise invest in, individual credit accounts or packages of credit accounts or their associated accounts receivables.
- [0083] Referring now to Figure 2A, in some embodiments, a networked gaming system 100 includes and is operable to support a wager credit management service 205. In some embodiments, the wager credit management service 205 communicates with a host server (controller) 219 over network 218. In certain instances, this network can be a virtual private network. The controller 216 can be operatively coupled to a local database and

may optionally be a server on the casino premises. The controller 219 can be operatively coupled to one or more gaming devices 220. Some game devices 220 can include a currency acceptor 225, a card reader 230, and/or a hopper mechanism 235. Some game devices can be connected to an external system interface 240, an external touch display 245, or both.

[0084] Gaming devices 220 can be interfaced to the controller 219 by various methods. One example method (not shown) involves interfacing gaming devices 250, 255, 260 to a fiber tap board. The fiber tap boards can be daisy-chained together to connect multiple gaming devices 250, 255, 260 to a single controller 219. To distinguish one gaming machine from another when using a daisy-chained configuration, gaming machines 250, 255, 260 can support an automated and/or attendant configurable system address range assignment.

[0085] In another embodiment, a smart interface board (SMIB) 265, 270 connects gaming devices 250, 255 to a controller 219 via, for example, a serial-to-tcp/ip converter 275 connected to the controller 219 via, for example, USB. One example of a commercially available serial-to-tcp/ip is the Lantronix UDS1100 External Device Server. The SMIB 265, 270 can poll the gaming device 250, 255 to which it is connected and pass the information for that gaming device 250, 255 to the controller 219. In some instances, the SMIB 270 is installed in the gaming device 255 and connected to a master communication board 280. In other instances, the SMIB 265 can be part of an external interface device 240. In certain instances, the gaming device 260 is designed to interface directly with the controller 219 without a SMIB. In some instances, mobile gaming devices 285 and wireless gaming devices 290 communicate with the controller 219 over a wireless LAN 295 over protocols such as TCP/IP and/or UDP.

[0086] In certain instances, the controller 219 requests data by sending general polls and long polls to the gaming devices 220. General polls are sent to the gaming devices 220 to obtain event information. In some embodiments, gaming devices respond to general polls with a single byte exception code indicating that an event has occurred. For example, when the controller 219 desires accounting information, such as the gaming device's managed credit meter total, it issues a long poll requesting the specific data. When responding to a host long poll, the gaming device 219 message can include its address, host command, requested data, and a two-byte cyclical redundancy check (CRC).

[0087] In some applications, the controller 219 calculates a CRC for one or more types of long polls. The CRC is calculated over the entire packet, including, for example, the address

and command byte, with an initial seed value of zero. The gaming device 220 calculates the CRC in the same manner for one or more multi-byte long poll responses.

[0088] Cases may arise where the wager credit management service 205 is offline or otherwise unavailable to the controller 219. When the connection between the wager credit management service 205 and the controller 219 are interrupted, there is the potential to lose credit management authorization data, transactional data, or both. In some applications, messages are placed on a transmit queue and subsequently dequeued after receipt by the wager credit management service 205.

[0089] In some embodiments, the controller 219 can configure a gaming device for real-time event reporting. Gaming devices 220 can respond with an exception message including, for example, its address, an event response identifier, an exception code, any additional data, and a two-byte CRC. When in this mode, gaming devices 220 can respond to long polls with event responses.

[0090] Referring now to Figure 2B, in some embodiments, the wager credit management system 205 integrates with a one or more external systems 216 through an external systems connector service 215, creating a multi-system integration configuration 217. In some embodiments, external systems data, functions, or both are engaged through the external systems connector service 215, the external systems including one or more of; a) an identify verification system 206 for providing verification of player identification data and credentials, b) a player's club system 207 for one or more of sharing player, game play, player account, and reward related data and functions, c) a banking system 208 for one or more of making automated direct deposits or automated direct debit, d) a fraud verification system 209 for detecting fraudulent activity, data, or behavior, e) casino management system 210 for engagement with casino management functions and data, f) payment management solution 211, g) credit screening system 212 for the execution of credit screening including checking derogatories, h) one or more credit scoring systems 213 for obtaining credit related scoring output, and i) one or more compliance reporting systems 214 for automated filing of compliance and regulatory reports.

[0091] In some instances, the back-end architecture is a publish-subscribe architecture, stream processing architecture, or both. Referring now to Figure 3, in some embodiments, data streams from one or more of external devices 315, gaming devices 220, certain system components 325, external services, mobile apps 320, and other sources communicate with, via a stream processing services API 325, and are processed by, a near-realtime

stream processing framework 330 such as, for example, Samza, using a high-throughput distributed messaging system 335 such as Kafka for messaging and Yarn for fault tolerance, processor isolation, security, and resource management. Transaction and event data can be persistently stored in one or more data stores 305, 310, and retrieved to support the creation of real-time jobs or tasks for analyzing stream data against conditions and issuing resulting actions. In some embodiments, stream data is not stored. In other embodiments, data is stored for a period of time, supporting, for example, time-period and time series jobs. In still other embodiments, data streams are persistently stored. In some embodiments, a publish-subscribe stream process architecture 400 (e.g., see Figure 4) is implemented.

[0092] Referring now to Figure 5 and Figure 6, in some embodiments, one or more engines or services perform the various operations of the wager credit management system 200. The core services layer 505 can include, for example, one or more of a messaging service 605, logging service 610, encryption services 620, and a communication engine 615. The credit application services layer 510 can include one or more of authentication services 625, credit application processing engine 640, a fee calculation engine 630, a credit access service 645, an external systems connector service 635, and a credit account management service 650. In some instance, a compliance service layer 515 includes one or more of a suspicious activity monitoring engine 655, a currency transaction monitoring engine 665, a compliance reporting service 660, and a compliance filing service 670. In some implementations, an account services layer 520 includes one or more of a credit account transfer service 675, a credit packaging engine 680, a reconciliation engine 685, and a transfer billing service 690. In some embodiments, a responsible gaming service 525 provides configurable credit allocation to support responsible gaming practice or compliance.

[0093] In some embodiments, the credit line may be funded in advance of play, while the player is in the casino, or during play, either on request of the player before play commences or while the player is engaged in wagering and is in need or want of credit. The player may make the request through the gaming machine, through a gaming machine peripheral, at a kiosk, at a cashier window, on a mobile device, or at or through some other suitable point of contact or interface. A decision whether to extend credit may be made by casino management or by other casino employees or by another party that may be paid by the casino or the player for providing this service, or by a warrantor. The decision may be

made automatically by computer or other suitably programmed machine that in some embodiments may automatically obtain and evaluate information about the player such as a credit report. If the casino or warrantor decides not to extend credit, the player may fund the play with cash. If the casino decides to extend credit, a credit limit is set and entered into a database along with a player identification, and a credit account is created for the player. If a fee is charged for credit, the credit fee is added to the player's credit obligation, or in some embodiments the player may opt to pay this fee in cash or some other way. The player may then fund the play with credit or in some embodiments with more cash or a combination of cash and credit. In some instances, an intermediate wager account holds allocated wager credit.

[0094] In some instances, the player submits a request for a credit line in advance of arriving at the casino. In some embodiments a message is sent to the player advising that a fee will be assessed. Such notice can be provided as part of the initial credit application rather than by separate message. In some implementations, if the player does not agree to the fee, the process ends. In some embodiments, no fee is charged for the initial application. If the request is not approved, optionally a message to that effect may be sent to the player and the process ends. Otherwise, a credit limit is set based on financial or other information provided by the player or as determined by the casino without player information, the credit limit and a player identification are entered in a database, and a credit account, wager account, or both are created for the player. In some embodiments the initial wager account balance is zero. In some embodiments the database is contained within a gaming device, at a server location in the casino, or in another location as may be convenient, or the database may be maintained by another party and accessed by the casino by electronic or other suitable communication interface.

[0095] In some embodiments the credit line may be funded in advance of being used by the player. If the casino's own funds are to be used, the funds are made available. Otherwise the funds are made available from a party other than the casino, such as a warrantor. For example, a lender such as a bank, finance company, small-loan company, or the like may commit to advance funds against a credit line. In some embodiments such an advance could be done all at once in the entire amount of the credit line, the advance being credited to the casino's account. The funds would then be transferred from the casino's account to the player's account in amounts and at times as needed by the player, for example as requested by the player or as determined by the casino. In other embodiments the funds

would be disbursed from the lender only as the player actually uses them for wagering. In yet another embodiment, an intermittent reconciliation occurs transferring funds between the warrantor and the casino based on the credit balance of a single player, or alternatively, based on an aggregated balance of credit across a set of players.

[0096] Referring now to Figure 7A, in some embodiments, while a player is engaged in game play 700, a player requests a line of credit 705 through an at-game interface, such as through a gaming device interface, a SMIB, a mobile device, or the like. This request can be communicated to the credit application services layer 510 of the wager credit management service 205 via the messaging service 605. The fee calculation engine 630 can determine, based on input factors, fee requirement and amount rules, or both, whether a fee is required and if so, the amount of the required fee 710. In some embodiments, a fee can include one or more of an application fee, a scoring fee, an external service fee, a convenience fee, or the like. Once the fee determination is made, if a fee is required, the credit application processing engine 640 can initiate a process generating a fee prompt view for display at the player interface 715. A fee acceptance input is received at the player interface, indicating whether or not the fee is authorized. If it is determined that the fee is not authorized 725, the credit application process ends 727 and the player can continue play with existing funds or through the addition of cash. If it is determined that the fee is authorized 725, the credit application processing engine initiates the credit application process 730, which can include collecting information from the player directly through the player interface, collecting information from other sources such as an internal or external database, performing credit checks through interfacing with third-party credit services, requesting credit approval from a warrantor, or the like, and making a determination based one or more of the aforementioned factors whether or not to extend credit 735. If the credit application processing engine 640 determines that credit will not be extended, credit application processing engine 640 can initiate generating a credit denial view for display at the player interface 740. At this point, the game will continue to operate in its current state 745, such as a credit-less, cash-only state.

[0097] Referring now to Figure 7B, in some embodiments, one or more transaction fees are allocated to particular entities based, at least in part, request type, request amount, or both 711. If it is determined that there are no fees required, then the transaction fee required variable is set to false 712. If transaction fees are required, a determination is made whether or not the fee is chargeable 713. If it is not chargeable, then the transaction fee

required variable is set to false 714. If it is chargeable, then it is determine whether or not the player is to be charged the fee 716. If the player is to be charged, then the fee amount is added to the transaction fee variable 717, and the transaction fee required variable is set to true 718. If it is determined the player is not to be charged, then it is determined whether or not the casino is to be charged 719. If so, the transaction fee amount is added to the aggregate pending casino fee charge variable 721.

[0098] Referring now to Figure 7C, in some embodiments, one or more of credit approval, maximum credit amount, or both, are determined, at least in part, based, at least in part, on data received from one or more external systems, such as a third party credit scoring system. The processing of a credit application request can begin by retrieving applicant's scoring data input values 781, such as, for example, one or more of the applicant's first name, last name, social security number, driver's license number, driver's license information, age, email, bank account information, address, and the like. Some or all of the retrieved applicant's scoring data input values can be marshalled and transmitted to one or more external system 783. Upon completion of third-party external processing activity, the wager credit management system receives from the external system one or more scoring data output values associated with one or more data scoring input values 785. Scoring data output values can include, for example, FICO scores, non-FICO credit scores, such as an iPredict score, and the like. These scores can be use alone or in combination to calculate a first application score value, in certain cases, by applying one or more additional weighting factors to one or more of a scoring data output values 787.

[0099] In some embodiments, additional scoring data values are retrieved. Such values can include, for example, one or more of player club enrollment status, bank account automated direct debit authorization status, prior funds advancement and account pay down activity, full FICO report status, and the like 789. In some instances, a second application score value is calculated based, at least in part, on the one or more additional scoring attributes 791. In some instances, a final application score is calculated based at least in part on the first application score. In other embodiments, a final application score is calculated based at least in part on the second application score. In still other embodiments, a final application score is calculated based at least in part on the first application score and the second application score 793.

[00100] In some implementations, one or more score-to-credit approval schedules are retrieved 795 (e.g., see Figure 30 through Figure 33). For each approval schedule credit amount of

the applicable schedule, the final application score is used to determine a maximum approvable credit amount 797, and the maximum approved credit amount is set to the determined maximum approvable credit amount 798. If the maximum approved credit amount is greater than zero, the approval status is set to true 799.

[00101] In some embodiments, multiple pre-defined approval tiers define requirements for players to obtain approval and advances for increased credit limits. This tiers can follow the same process described in Figure 7C, but with one or more of different preconditions, receiving different external system outputs, receiving different additional scoring data values, applying different thresholds or schedules, or the like. Figure 30 through Figure 33 provides an example of a set of a tiered credit approval schedules. Pre-conditions for a first tier could include for example, one or more mandatory requirements, such as, existing enrollment in a casino player's club system 207, receipt of acceptable output from an identity verification system 206, receipt of acceptable output from a fraud verification system 209, minimum score from a credit scoring system 213, a minimum age, such as 21 years or older, and acceptance of one or more contractual conditions, such as acceptance of system terms and conditions, privacy policy, and the like. Approval for additional tiers can include one or more additional requirements, such as authorized direct debit from a bank account, receipt of acceptable output from a credit screening service 212, prior history of having utilized all existing available credit by advancing of funds to a wager account, prior history of having fully paid down a fully used available credit, and receipt of acceptable output of a full FICO credit bureau report from a credit screening system 212.

[00102] In some embodiments, if instead, the credit application processing engine 640 determines that credit will be extended 735, the credit application processing engine 640 can initiate a credit limit calculation determination process 750 determining the maximum credit available. In some instances, the maximum amount is authorized for automatic allocation to an existing or new credit account. In other instances, the player is prompted to select an authorized amount up to the maximum amount. In some instances, a maximum approval credit amount (e.g., see Figure 7C) is displayed as the maximum selectable amount or the maximum amount. If it is determined a credit account does not exist 755, one or more of a credit account is created 760, a general wager account or game-specific wager account may be created 765, or both. Once the credit account is created the credit limit is set 770. The credit limit can be set in various ways, including, for example,

automatically based on a credit allocation rule, such as allocating the maximum authorized amount, or through receipt of a credit amount selection less than the maximum authorized amount received from an input transmitted from the player interface to the credit application processing engine 640.

[00103] In some embodiments, once the credit application process is completed and funds are approved, some amount of the available credit can be accessed through the credit access service 645, added to the wager account 775, and deducted from the available credit of the credit account. Any transaction fee amount required 710 can be deducted from the wager account at the time the funds are added to the wager account 780. Alternatively, the player can provide payment of the fee by another means unrelated to the wager account.

[00104] Referring now to Figure 8, in some embodiments, a player requests a line of credit in advance of engaging in game play 800. This process is similar to the process describe for requesting credit while a player is engaged in game play 700 with a few various. For example, the request is received in advance of game play, 805, which means the request can occur off-premise, and can utilize additional interfaces, such as by voice phone, computer, written application, and the like. Also, where a required fee is not authorized, the credit application process simply ends without any return to game play 810. Also, the transaction fee can be received by methods other than reducing available funds in a wager account, such as by electronic payment from a banking or funds account 815.

[00105] Referring now to Figure 9, in some instances, a warrantor participates in one or more of the credit approval process, funds issuance process, and credit account ownership 900. Initially, a credit-approval process occurs that results in an approval 905. This approval process can be based on factors and rules directed by the casino operator, the warrantor, or both. In some instances, a warrantor owns the credit account and associated accounts receivable from the point of credit account creation. If it is determined that the credit account is warrantor-owned 910, funds can be transferred to the casino operator 920 to support the allocation of funds to player wager accounts. The amount of funds transferred from the warrantor to the casino operator can depend on a transfer fund policy, such as, for example, an immediate transfer of a full amount, an immediate transfer of a partial amount based on a credit threshold, a delayed transfer based on an intermittent schedule, a discounted transfer amount, and the like 915. In some embodiments, where it is

determined that the credit account is not warrantor-owned 910, the operator can fund advance request from an operator-funded operator account 925.

[00106] Upon detection of a fund advance request 930 at the credit access service 645, funds can be advanced to the associated wager account 935 by the credit account management service 650. If it is determined that the fund advance request is in excess of a pre-determined operator account threshold amount, the exceeding of which requires additional funding from a third party 940, transfer amounts can be requested from and transferred from a warrantor to the casino operator 920. The warrantor can be an existing warrantor with a proprietary interest in the credit account, or in case of an operator-owned credit account, the warrantor can be a new warrantor.

[00107] Once there are no additional funds required to meet the funds advance request 930, the fee calculation engine 630 determines whether or not a transaction fee is due 945. If there is a fee due, then the wager account where the funds are advanced is adjusted down by an amount equal to the transaction fee 950. When a credit account transfer request is detected 955 at the credit account transfer service 675, the discount factor for the receiving warrantor is retrieved 960 and the credit account ownership is transferred to the warrantor 965. The transfer billing service 690 generates a billing event for the credit account 970, accounting for the determined discount factor if applicable, and effectuates the billing through a pre-determined process, such as part of a reconciliation process.

[00108] Referring now to Figure 10 and Figure 11, in some embodiments, one or both of wager advance thresholds or credit approval amount thresholds can be used to throttle the access to and advancing of funds to players, such as for the purpose of promoting responsible gaming behaviors, complying with one or more laws or regulatory requirements, or reducing risk of financial loss to one or more of the player, casino, or warrantor.

[00109] Referring first to Figure 10, in some embodiments, the wager credit management system supports promotion or enforcement of one or more responsible gaming behaviors, such as, through the use of wager advance thresholds 1000 set and monitored at the responsible gaming service 525. One or more pre-determined credit thresholds can be set based on factors determined to be relevant to throttling game play 1005. It could be determined that based on factors such as, for example, the rate of play, the amount wagered, the current credit balance, past gaming behavior, financial well-being, and the like, a credit-per-period threshold of \$1,000.00 is set. That period could be, for example a one-hour lock period 1010, or could be set to period mandated by a regulatory body. Similarly, there

could be additional thresholds with varying locking periods, such as, a 48-hour locking period once an advanced credit threshold of \$10,000.00 is reached within a 24-hour period.

[00110] In some embodiments, the start time is set when a player places a first wager 1015 and a lock is set restricting credit advances to a maximum amount equal to a first threshold amount 1020. In other instances, the start time is set when a player first advances funds from a credit account to a wager account. One or more lock periods are retrieved 1025, the current time is retrieved repeatedly during game play at regular intervals 1030, and a determination is made if time has passed in excess of the one or more lock period 1035. Where the time that has passed from the start time to the current time exceeds a given lock period, that lock is removed 1040. Where the lock is not removed, the ability to advance funds in excess of the threshold is restricted.

[00111] Referring now to Figure 11, in some embodiments, the wager credit management system utilizes credit approval amount thresholds to throttle gaming behavior 1100 set and monitored at the responsible gaming service 525. One or more pre-determined credit approval thresholds can be set based on factors determined to be relevant to throttling game play 1105. An approval required setting can be set to true for credit requests exceeding one or more credit amount thresholds 1110. When a funds advance request is detected 1115, the total credit line advance amount is retrieved 1120. The total credit for purposes of determining approval requirements is the sum of the total credit line advance amount and the funds advance amount requested 1125. Credit approval thresholds are retrieved 1130, and if it is determined that the nearest credit amount threshold less than this summed total credit amount is approved 1135, then funds can be advanced 1140. If not, then an approval process is initiated 1145. In some instances, like the wager advance thresholds mechanisms 1000, the credit approval thresholds can be used with associated locks to throttle play, avoiding the need to go through the credit approval process until such credit is needed.

[00112] In some instances, services support and facilitate intermittent reconciliation of credit accounts held by or owned by one or more warrantors and one or more casinos. Referring now to Figure 12, in some embodiments, a reconciliation engine 685 preforms reconciliation of funds advanced between a warrantor and an operator based, at least in part, on intermittent analysis of player credit account balances, either individually or in the aggregate 1200. In some embodiments, the last reconciliation even log entry is

retrieved from a data store 1205. It is parsed such that the data/time of the log entry is determined 1210, and the start date/time reconciliation variable for the reconciliation process is set to the parsed date/time value 1215. The end date/time reconciliation variable for the reconciliation process is set to the current date/time value 1220, or in certain instances, a selected date/time value, and all credit advance event records to wager accounts between start reconciliation date/time and end reconciliation date/time are retrieved 1225. The total credit advance amount for the reconciliation period is calculated and set by summing the credit advance amounts for all event records retrieved 1230. All credit line adjustment and pay down event records are retrieved for the same reconciliation period 1235, and the total collection amount is calculated and set as the sum of adjustment and pay down amounts for all adjustment and pay down records retrieved 1240. The amount of the aggregate pending fee payments chargeable to the casino is retrieved 1242. Reconciliation amount for the reconciliation period is set to the total credit advance amount minus the total collection amount 1245. If its determined that the reconciliation amount is greater than zero 1250, then the reconciliation amount minus the aggregated pending casino fee charge is transferred from warrantor account to the operator account 1255. Alternatively, if its determined that the reconciliation amount is less than zero 1250, then the reconciliation amount plus the aggregated pending casino fee charge is transferred from operator account to the warrantor account 1260. It will be appreciated by one skilled in the art that reconciliation calculations can be adapted based on other factors and business arrangements.

[00113] Referring now to Figure 13 through Figure 15, in some embodiments, one or more services provide suspicious activity and currency transaction monitoring and reporting, such as, for example, one or more of for currency transactions exceeding threshold amounts, structured transactions, and minimal gaming activity. In certain instances, reports are automatically generated, automatically filed, or both.

[00114] Referring now to Figure 13, in some instances, the currency transaction monitoring engine 665 detects a wager account pay down event 1305. The start time is set to the date/time of the wager account pay down event 1310, and all wager account pay down events that occurred during the 24 hour period prior to the start time are retrieved 1315. Currency transaction total is set to the sum of the retrieved wager account pay down event amounts 1320. If it is determined that the currency transaction total is less than, for example, \$10,000.00 1325, no transaction reporting alerts or reporting occurs 1330.

Alternatively, if it is determined that the currency transaction total is greater than, for example, \$10,000.00 1325, transaction reporting alerts, reporting, or both occur. Reporting alerts from the compliance reporting service 660 can include, for example, transmitting a Currency Transaction Report notification alert 1335. Reporting can include, for example, retrieving the player's name, social security number, and driver's license number 1340 and in some implementations, preparing, for example FINCEN Form 103 Current Transaction Report for Casinos. In some embodiments, a compliance filing service 670 facilitates automatic, or semi-automatic, filing of such reports 1350.

[00115] Referring now to Figure 14, another example of compliance activities includes monitoring for and detection of structured transactions 1400. In some instances, the suspicious activity transaction monitoring engine 655 detects a wager account pay down event 1405. The start time is set to the date/time of the wager account pay down event 1410, and all wager account pay down events that occurred during a 14 day period prior to the start time 1415. Currency transaction total is set to the sum of the retrieved wager account pay down event amounts 1420. If it is determined that the currency transaction total is less than, for example, \$10,000.00 1425, no transaction reporting alerts or reporting occurs 1430. Alternatively, if it is determined that the currency transaction total is greater than, for example, \$10,000.00 1425, transaction reporting alerts, reporting, or both occur. In some instances, the suspicious activity monitoring engine 655 transmits a possible suspicious activity alert notification 1435. If it is determined that the transactions do not constitute reportable structured transactions 1440, then no further action is taken 1445. If it is determined that the transactions do constitute reportable structured transactions 1440, the player's name, social security number and driver's license number are retrieved 1450, and in some instances, the compliance reporting service 660 prepares the appropriate reports, such as the FINCEN Form 102 Suspicious Activity Report by Casinos and Card Clubs. In some embodiments, a compliance filing service 670 facilitates automatic, or semi-automatic, filing of such reports 1460.

[00116] Referring now to Figure 15, another example of compliance activities includes monitoring for and detection of minimal gaming transactions 1500. In some instances, the suspicious activity transaction monitoring engine 655 detects a large wager account or credit line pay down event 1505 and a large cash out event 1510. The suspicious activity transaction monitoring engine 655 then determines based on a pre-determined ratio thresholds if gaming activity was minimally proportional to the pay down amounts

and cash out amounts 1515. If that determination is that it is proportional, then no transaction reporting alerts or reporting occurs 1520. If that determination is that it is not proportional, then in some instances, the suspicious activity monitoring engine 655 transmits a possible Minimal Gaming with Large Transactions suspicious activity alert notification 1525. In some embodiments, further determinations are made as to whether transactions constitute other reportable transactions 1530. If no other reportable transaction conditions are identified, no transaction reporting alerts or reporting occurs 1535. If it is determined that the transactions do constitute reportable structured transactions 1530, the player's name, social security number and driver's license number are retrieved 1540, and in some instances, the compliance reporting service 660 prepares the appropriate reports, such as the FINCEN Form 102 Suspicious Activity Report by Casinos and Card Clubs.

[00117] In some implementations, an at-machine interface, such as via a SMIB or embedded technology, provides one or more of account authorization, account access, credit request submission, credit approval notification, credit access, funds advancement, and fee authorization. Referring now to Figure 16 through Figure 18, in some embodiments, a user interface can provide a series of selections for account game management 1600, including interface controls to request a new credit line 1605, access an existing credit line 1610, or both. Upon detection of a credit access event, an authentication event is initiated such as, for example, generating an account authorization view for authenticating credit account access 1700. Once received, the receiving device can communicate the authentication input to the authentication service 625. If authentication is validated, the credit access service 645 can control elements of credit access. The credit account management service 650 can provide credit management views 1800, displaying the credit line total 1805, the available credit 1810, and one or more controls for initiating fund advancement functions 1815.

[00118] Referring now to Figure 19 and Figure 20, in some embodiments, upon detection of a credit request event, a credit line request view can be displayed 1900. In some embodiments, a series of authorization acknowledgement prompts can be provided, such as, for example, an acceptance of terms 2005, an acceptance of fees 2010, and an authorization to use available information to perform credit application processing activities 2015.

[00119] Referring now to Figure 21 to Figure 27, in some embodiments, a mobile device app provides one or more of credit request submission, credit approval notification, account access, credit access, funds advancement, fee authorization, and funds transfer confirmation. An account registration view 2100 can collect identification and authentication credential information, as well as information used in credit application processing. In some embodiments, this can include one or more of first name 2105, last name 2110, mobile number 2115, email 2120, and social security number 2125. In some instances, there is an interface to one or more of receive, scan, and transmit a driver's license 2130. In some embodiments, a series of authorization acknowledgement prompts can be provided, such as, for example, an acceptance of terms 2135, and an acceptance of fees 2140.

[00120] In some instances, a view is available confirming the authorization of a credit line 2200, which can include, for example, a credit score 2205, an authorized maximum credit amount 2210, and a control to accept the available credit line 2215. Once acceptance is detected, an interface to the credit account management service 650 functions can be displayed 2300, providing controls to, for example, view available credit 2305, view the credit limit 2310, and initiate credit use 2315. Upon detection of an initiate credit use control event, a view can be displayed for receiving an amount of credit to be advanced. Controls can include, for example, an amount to be advanced display 2405, a post-advance available credit display 2410, fixed advance amounts 2415, and an initiate advance control 2420. In some embodiments, a fixed transaction fee acceptance view is displayed 2500. In another embodiment, a percentage of amounts advanced acceptance view is displayed 2600. In some implementations, upon completion of the funds transfer, a confirmation view is displayed 2700.

[00121] Many different systems can implement the method of the present invention. Moreover, the steps of the present method could occur at different parts of a system, at a single part of a system, in parallel across the system, or in any other fashion. Moreover, certain embodiments of the invention are described with reference to methods, apparatus (systems) and computer program products that can be implemented by computer program instructions. These computer program instructions can be provided to a processor of a general purpose computer, special purpose computer, or other programmable data processing apparatus to produce a machine, such that the instructions, which execute via the processor of the computer or other programmable data processing apparatus, create

means for implementing the acts specified herein to transform data from a first state to a second state.

[00122] These computer program instructions can be stored in a computer-readable memory that can direct a computer or other programmable data processing apparatus to operate in a particular manner, such that the instructions stored in the computer-readable memory produce an article of manufacture including instruction that implement the acts specified herein.

[00123] 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 which execute on the computer or other programmable apparatus provide steps for implementing the acts specified herein.

[00124] The various illustrative logical blocks, modules, circuits, and algorithm steps described in connection with the embodiments disclosed herein can be implemented as electronic hardware, computer software, or combinations of both. The various illustrative logical blocks, modules, and circuits described in connection with the embodiments disclosed herein can be implemented or performed with a general purpose processor, a digital signal processor (DSP), an application specific integrated circuit (ASIC), a field programmable gate array (FPGA) or other programmable logic device, discrete gate or transistor logic, discrete hardware components, or any combination thereof designed to perform the functions described herein. A general-purpose processor can be a microprocessor, but in the alternative, the processor can be any conventional processor, controller, microcontroller, or state machine. A processor can also be implemented as a combination of computing devices, e.g., a combination of a DSP and a microprocessor, a plurality of microprocessors, one or more microprocessors in conjunction with a DSP core, or any other such configuration.

[00125] The blocks of the methods and algorithms described in connection with the embodiments disclosed herein can be embodied directly in hardware, in a software module executed by a processor, or in a combination of the two. A software module can reside in RAM memory, flash memory, ROM memory, EPROM memory, EEPROM memory, registers, a hard disk, a removable disk, a CD-ROM, or any other form of computer-readable storage medium known in the art. An exemplary storage medium is coupled to a processor such that the processor can read information from, and write information to, the storage

medium. In the alternative, the storage medium can be integral to the processor. The processor and the storage medium can reside in an ASIC. The ASIC can reside in a user terminal. In the alternative, the processor and the storage medium can reside as discrete components in a user terminal.

[00126] Referring now to FIG. 29, in one configuration, the wager credit management system devices 2900 include a bus 2905 which interconnects major subsystems of computing device, 112, such as a central processor 2910, a system memory 2915 (typically RAM, but which may also include ROM, flash RAM, or the like), an input/output controller 2920, an external audio device, such as a speaker system 2925 via an audio output interface 2930, an external device, such as a display screen 2935 via display adapter 2940, an input device 2945 (e.g., remote control device interfaced with an input controller 2950), one or more USB devices 2965 (interfaced with a USB controller 2970), and a storage interface 2980. In some instances, the computing device 112 includes one or more sensors 2955 connected to bus 2905 through a sensor controller 2960 and a network interface 2985 (coupled directly to bus 2905).

[00127] Bus 2905 allows data communication between central processor 2915 and system memory 2920, which may include read-only memory (ROM) or flash memory (neither shown), and random access memory (RAM) (not shown), as previously noted. The RAM is generally the main memory into which the operating system and logic instructions are loaded. The ROM or flash memory may contain, among other code, the Basic Input-Output system (BIOS) which controls basic hardware operation such as the interaction with peripheral components or devices. Instructions resident with the wager credit management system computing devices are generally stored on and accessed via a non-transitory computer readable medium, such as a hard disk drive (e.g., fixed disk 2975) or other storage medium. Additionally, applications may be in the form of electronic signals modulated in accordance with the application and data communication technology when accessed via interface 2985.

[00128] Storage interface 2980, as with the other storage interfaces of controller 2900, may connect to a standard computer readable medium for storage and/or retrieval of information, such as a fixed disk drive 2975. Fixed disk drive 2975 may be a part of computing device 2900 or may be separate and accessed through other interface systems. Network interface 2985 may provide a direct connection to a remote server via a direct network link to the Internet via a POP (point of presence). Network interface 2985 may

provide such connection using wireless techniques, including digital cellular telephone connection, Cellular Digital Packet Data (CDPD) connection, digital satellite data connection, or the like. In some embodiments, one or more sensors connect to computing device 2900 wirelessly via network interface 2985.

[00129] Many other devices or subsystems (not shown) may be connected in a similar manner. Conversely, all of the devices shown in FIG. 29 need not be present to practice the present systems and methods. The devices and subsystems may be interconnected in different ways from that shown in FIG. 29. The aspect of some operations of a system such as that shown in FIG. 29 are readily known in the art and are not discussed in detail in this application. Computer instructions to implement the present disclosure may be stored in a non-transitory computer-readable medium such as one or more of system memory 2920 or fixed disk 2975. The operating system provided on computing device 2900 may be, for example, iOS™, ANDROID™, MS-WINDOWS™, UNIX™, LINUX™, OSX™, or another known operating system.

[00130] Depending on the embodiment, certain acts, events, or functions of any of the methods described herein can be performed in a different sequence, can be added, merged, or left out altogether (e.g., not all described acts or events are necessary for the practice of the method). Moreover, in certain embodiments, acts or events can be performed concurrently, e.g., through multi-threaded processing, interrupt processing, or multiple processors or processor cores, rather than sequentially. Moreover, in certain embodiments, acts or events can be performed on alternate tiers within the architecture. Alternatively, the gaming devices can be organized in alternate communication configurations such as daisy chaining.

[00131] The foregoing is a detailed description of some embodiments and aspects of this specification and is not intended to be limiting. Many other embodiments are possible and within the skill of those in the art.

CLAIMS

1. A wager game supporting computer system having an input/output controller in data communication with a plurality of mobile devices and/or casino devices each running a credit management app, a memory, and one or more processors configured to implement the steps of:
 - A. automated processing, including credit scoring processing, by the wager game supporting computer system of a wager gaming player's application for an advance of money or value for use in wager gaming in exchange for charging a transaction fee for the advance of money or value;
 - B. automated displaying to the wager gaming player of a balance available to the player of the advance of money or value for use in playing the wager game via the credit management app of the mobile device or casino device associated with the player;
 - C. automated predetermined control of the wager gaming player use of the advance of money or value by the wager game supporting computer system, including automated preventing of the wager gaming player from cashing out or transferring of the advance of money or value;
 - D. automated monitoring of the wager gaming player's use of the advance of money or value; and
 - E. automated issuing a predetermined notice when the automated monitoring identifies use of the advance of money or value exceeding a predetermined rate of play use threshold.
2. The wager game supporting system of claim 1, the one or more processors further configured to implement the step of:
 - F. after passage of a predetermined period of time from the advance of money or value or occurrence of the exchange in step A, automated paying down of the advance of money or value.
3. The wager game supporting system of claim 2, wherein the automated paying down of the advance of money or value includes automated charging against a source of credit or funds provided by, or on behalf of, the wager game player.
4. The wager supporting system of any one of claims 1 to 3, the one or more processors further configured to implement the step of:
 - automated purchasing of at least a portion of an ownership interest in accounts receivable on the advance of money or value provided to the wager gaming player.

5. A wager game supporting method implemented by a game supporting computer having an input/output controller in data communication with a plurality of mobile devices and/or casino devices each running a credit management app, a memory, and one or more processors configured to implement the steps of:

- A. processing, including credit scoring processing, by the wager game supporting computer of a wager gaming player's application for an advance of money or value for use in wager gaming in exchange for deducting a transaction fee from the advance of money or value;
- B. displaying to the wager gaming player of a balance available to the player of the advance of money or value for use in playing the wager game via the credit management app of the mobile device or casino device associated with the player;
- C. predetermined control of the wager gaming player use of the advance of money or value, including preventing of the wager gaming player from cashing out or transferring of the advance of money or value by the wager game supporting computer;
- D. monitoring of the wager gaming player's use of the advance of money or value; and
- E. issuing a predetermined notice when the monitoring identifies use of the advance of money or value exceeding a predetermined rate of play use threshold.

6. The wager game supporting method of claim 5, the one or more processors further configured to implement the step of:

- F. after passage of a predetermined period of time from the advance of money or value or occurrence of the exchange in step A, automated paying down of the advance of money or value.

7. The wager game supporting method of claim 6, wherein the paying down of the advance of money or value includes charging against a source of credit or funds provided by, or on behalf of, the wager game player.

8. The wager supporting method of claim 5, the one or more processors further configured to implement the step of:

- F. purchasing of at least a portion of an ownership interest in accounts receivable on the advance of money or value provided to the wager gaming player.