



US 20080261688A1

(19) **United States**(12) **Patent Application Publication**
Lewin et al.(10) **Pub. No.: US 2008/0261688 A1**(43) **Pub. Date: Oct. 23, 2008**(54) **AUTOMATED METHOD AND SYSTEM FOR A GAMING OPPORTUNITY****Related U.S. Application Data**

(60) Provisional application No. 60/907,825, filed on Apr. 18, 2007.

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A63F 9/24 (2006.01)(52) **U.S. Cl.** **463/29**(57) **ABSTRACT**

A method and system of applying for a gaming opportunity, including accessing a server for the gaming opportunity through a player device providing identification data to the server, and receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least one decision model to generate the score, the disparate player data obtained from a plurality of data sources.

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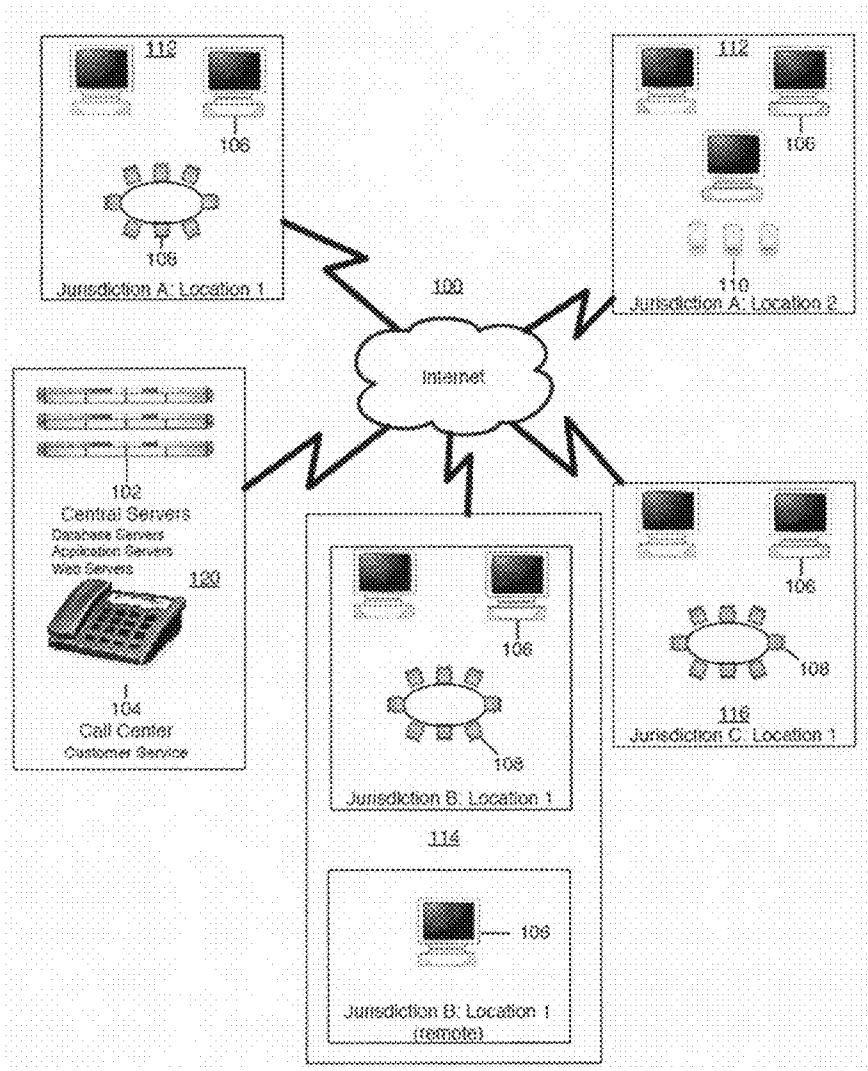
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WASHINGTON, DC 20004 (US)(73) Assignee: **Technology Assurance Laboratory, Inc.**, Inglewood, CA (US)(21) Appl. No.: **11/889,360**(22) Filed: **Aug. 13, 2007**

Fig. 1

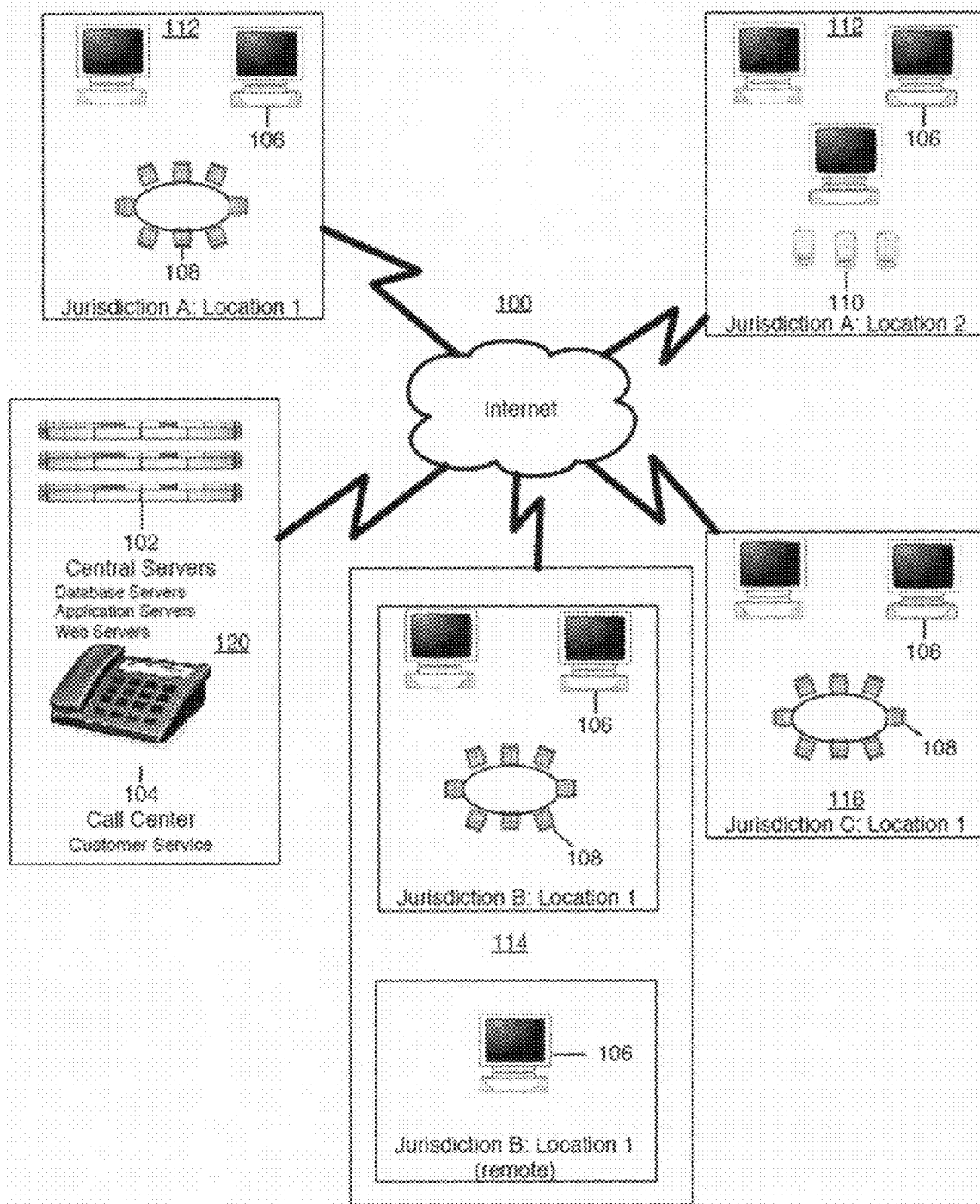


Fig. 2

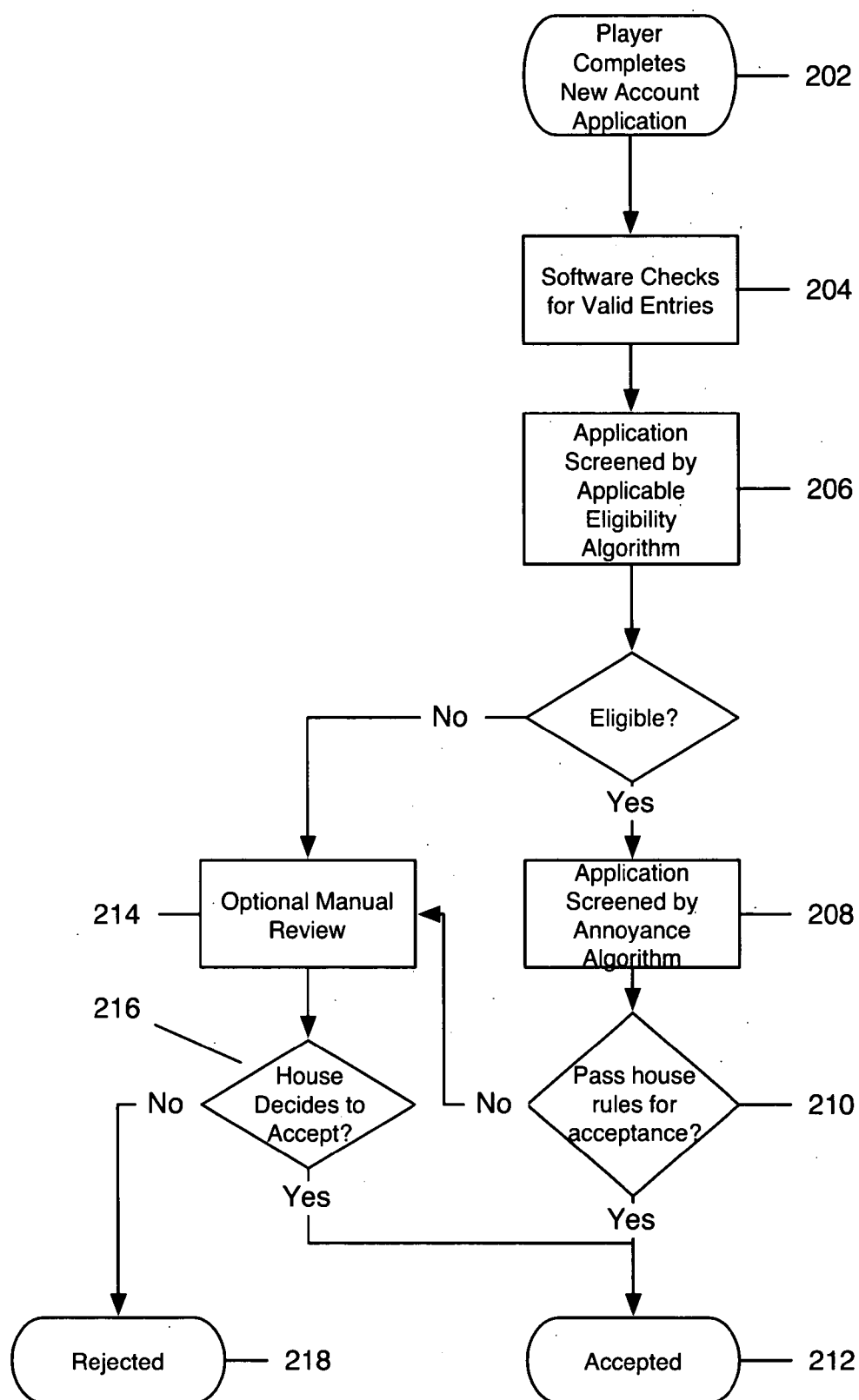


Fig. 3

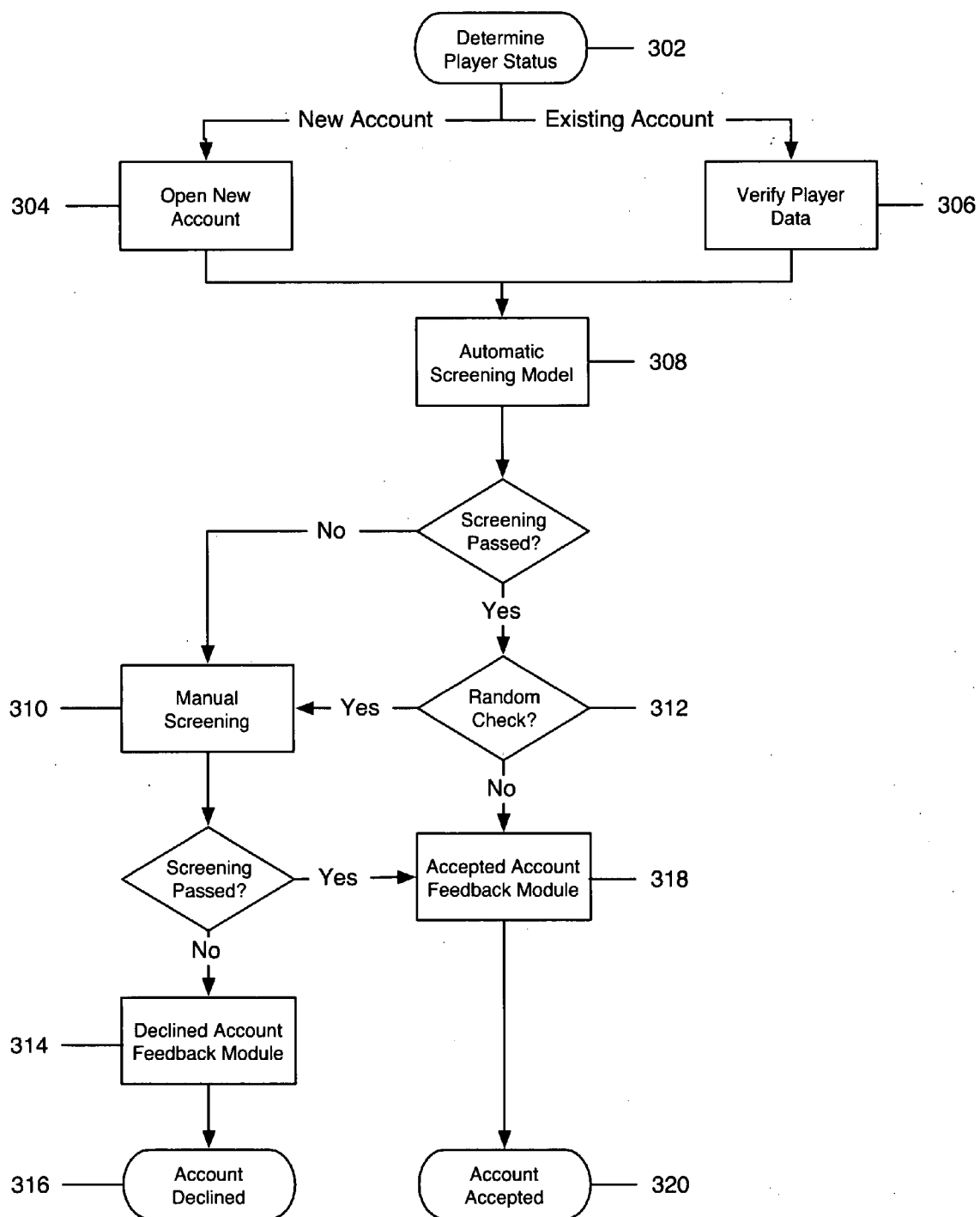


Fig. 4

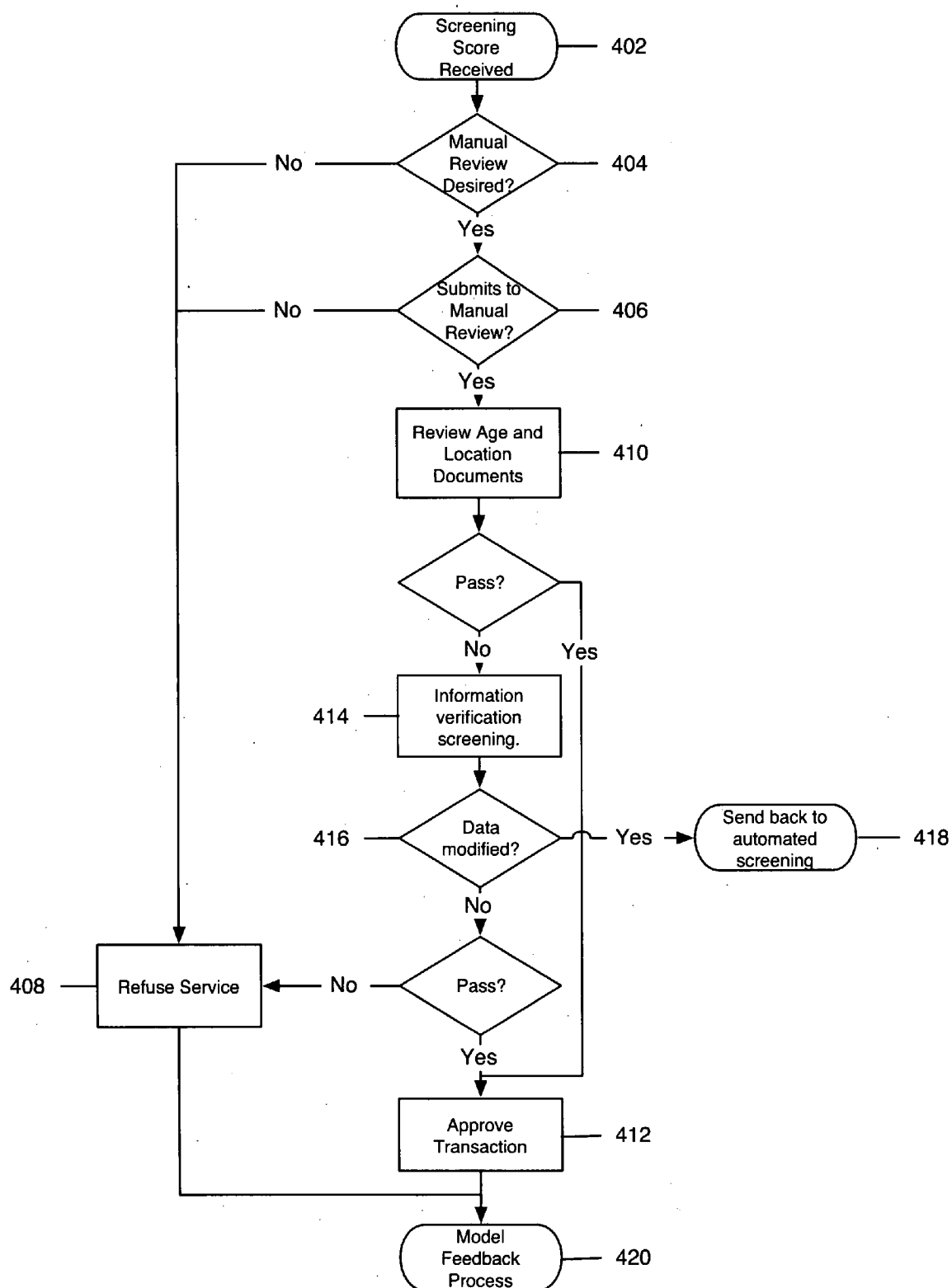


Fig. 5

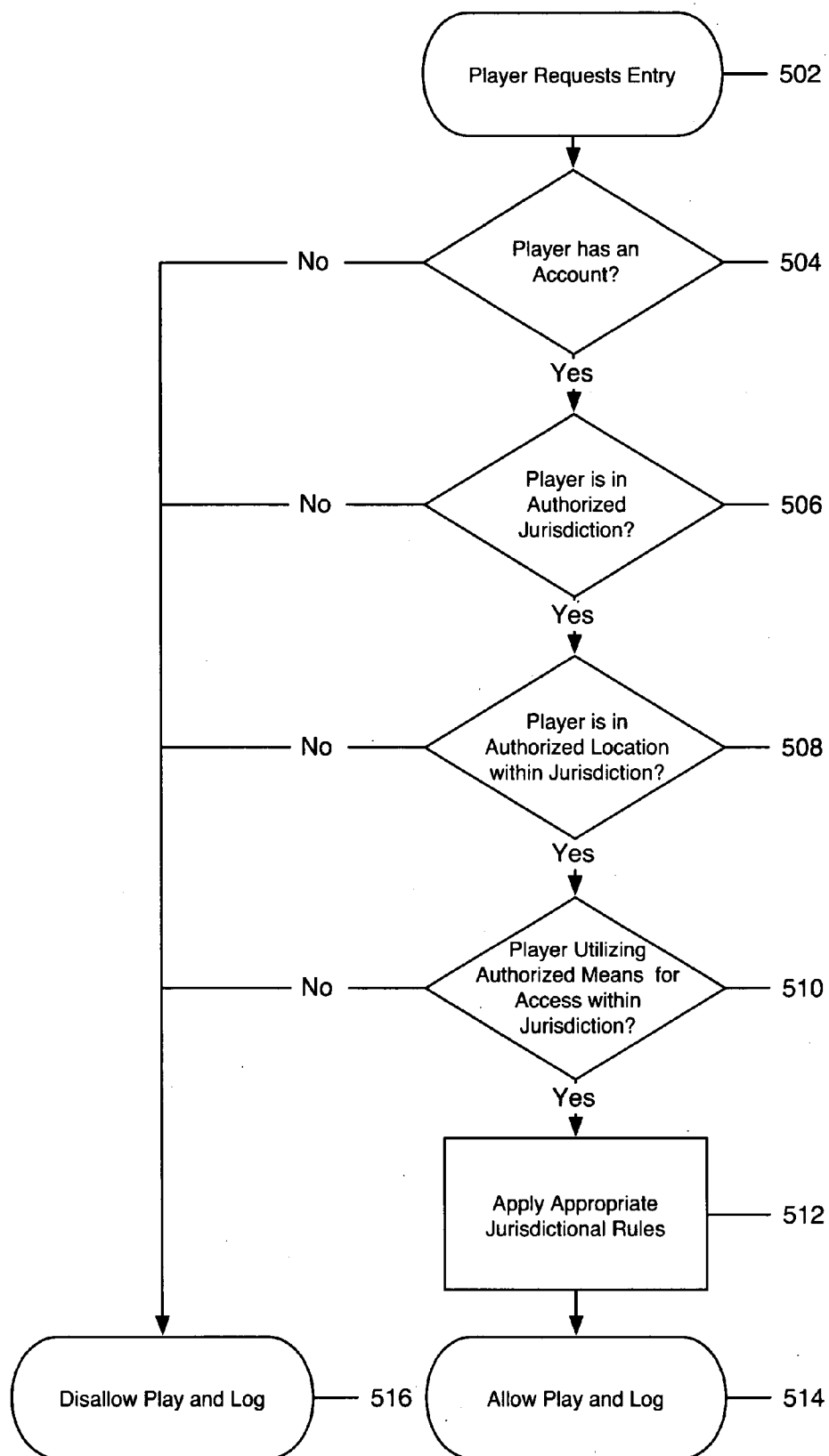


Fig. 6

Business Rule Weighting	Category	Consequences of a TRUE Result	602
5	Reject	The player is always flagged for ineligibility.	
4	Suspicious	This result may be combined with other results before making a determination. For instance, a "Reject" business rule may be implemented specifying if X or more rules in this category have a TRUE result, the player is flagged for ineligibility.	604
3	Negative Influence	This result will always be combined with other results before a determination is made	606
2	Synthetic	This business rule will be used to create synthetic (e.g., calculated, categorical) inputs usually used in the statistical modeling step.	608
1	Informational	This business rule will be used for informational purposes. Many times they will be used for post operational analysis.	610

Fig. 7A

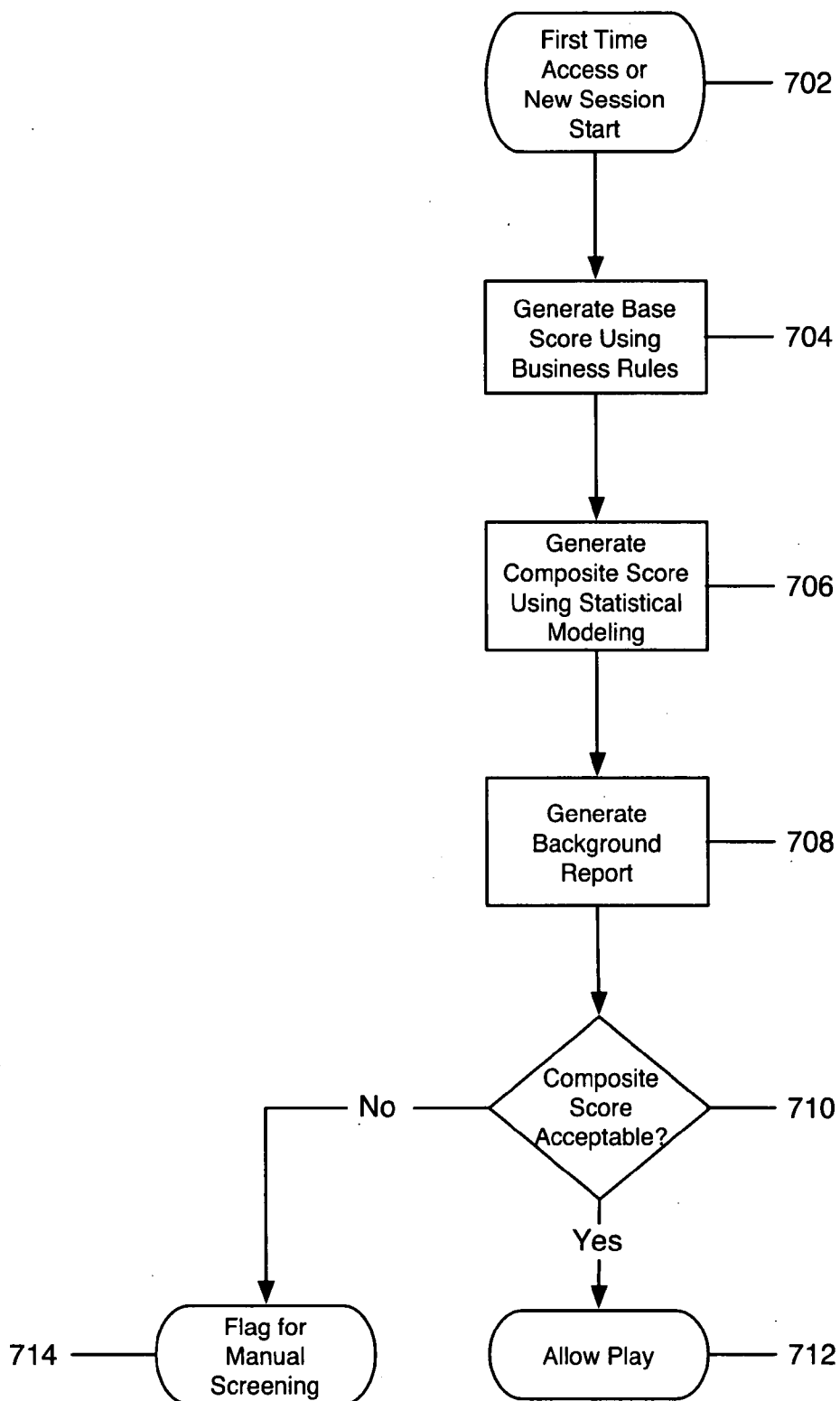


Fig. 7B

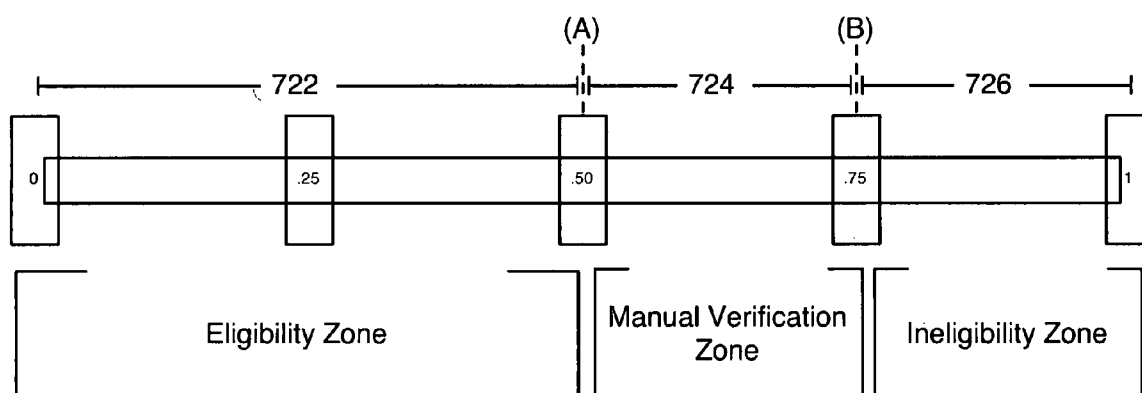


Fig. 8

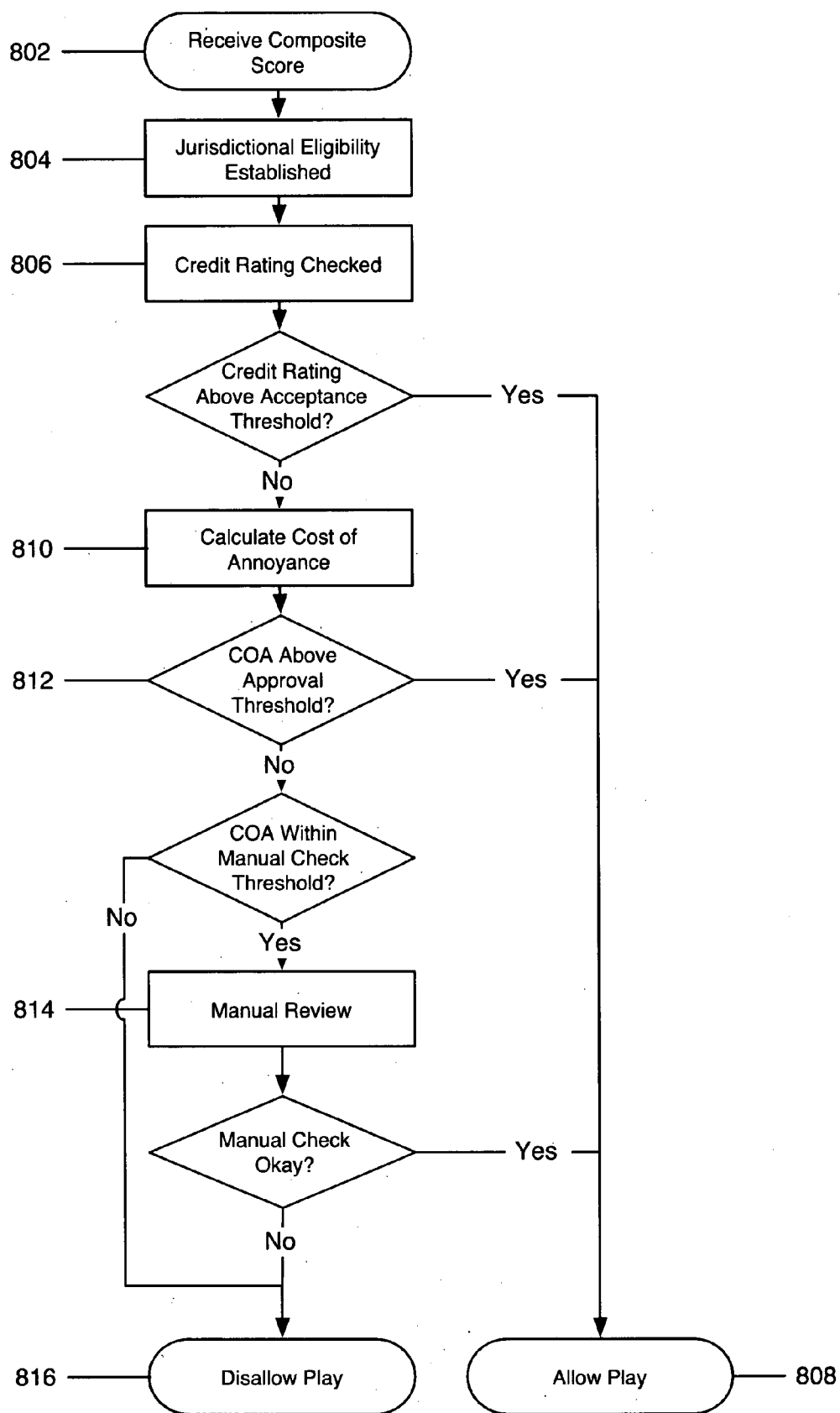


Fig. 9

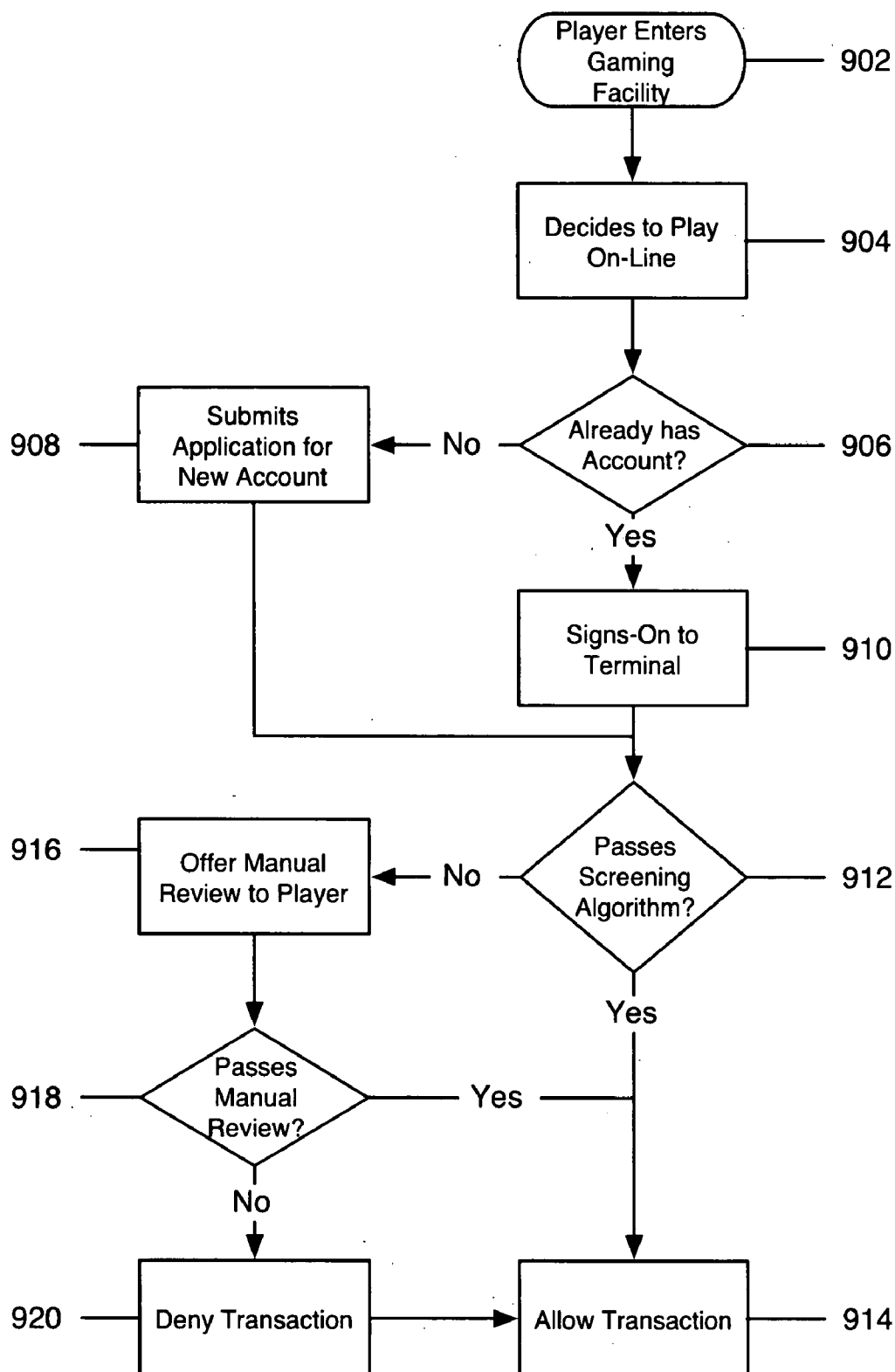


Fig. 10

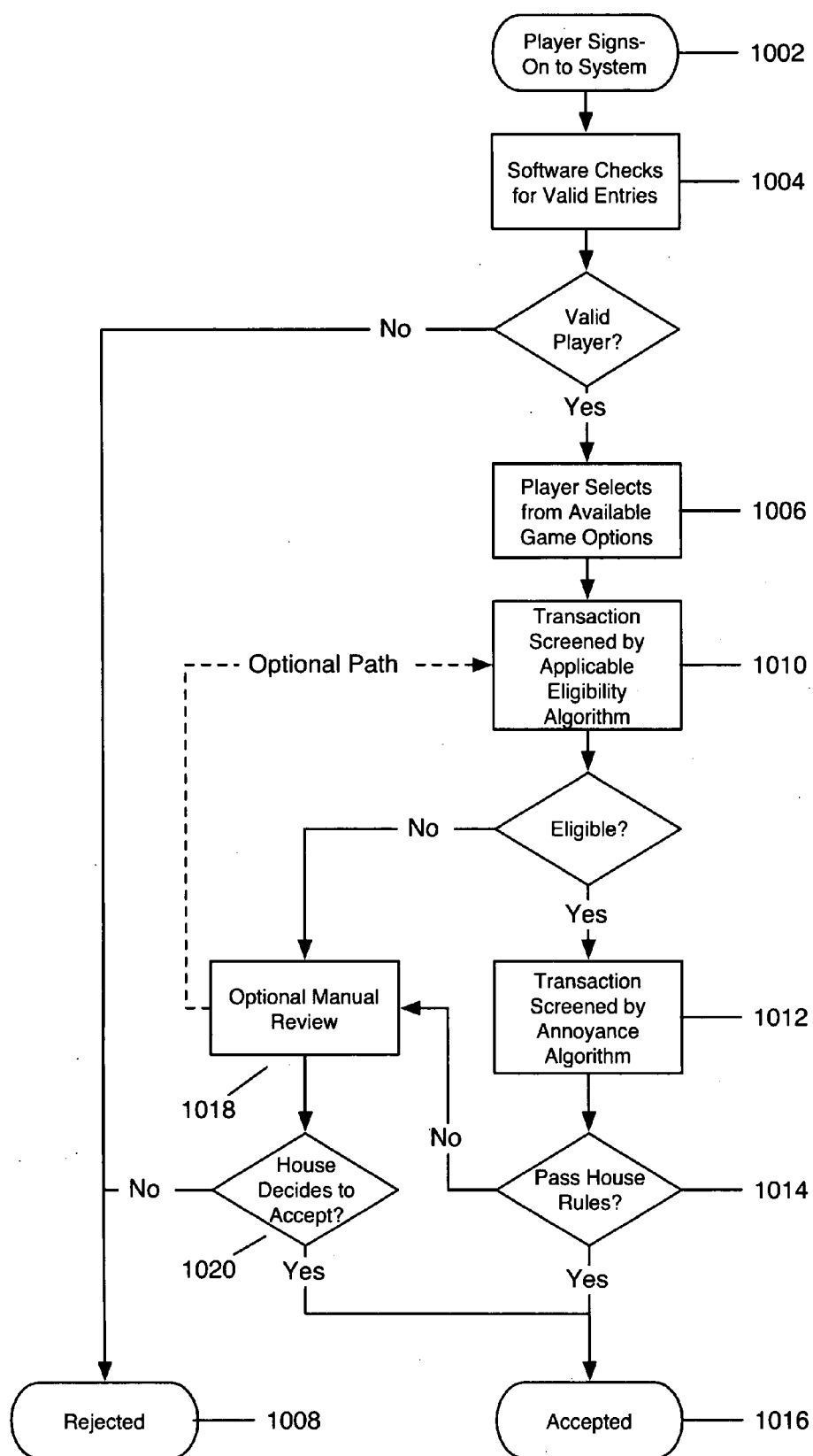


Fig. 11

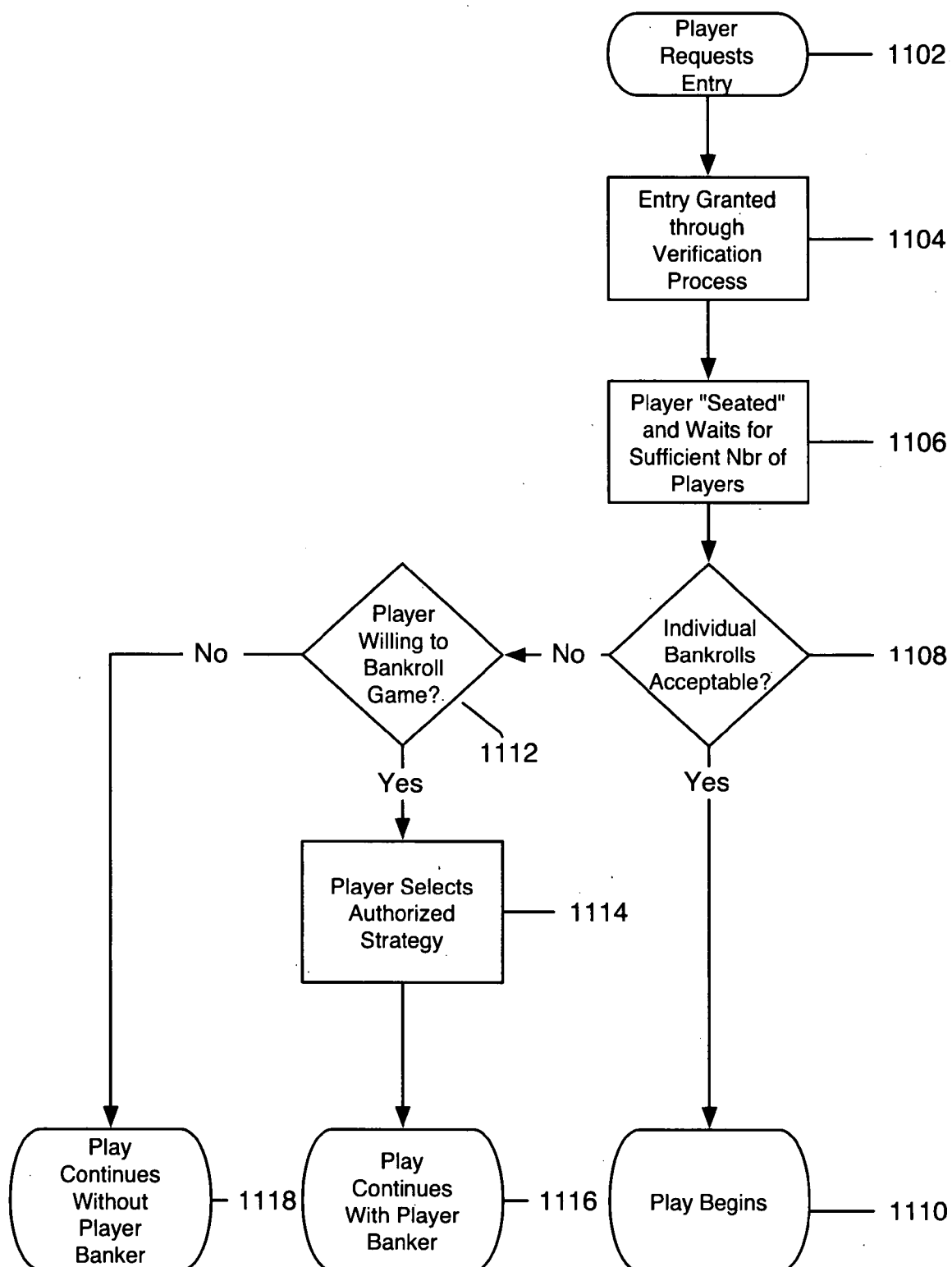


Fig. 12

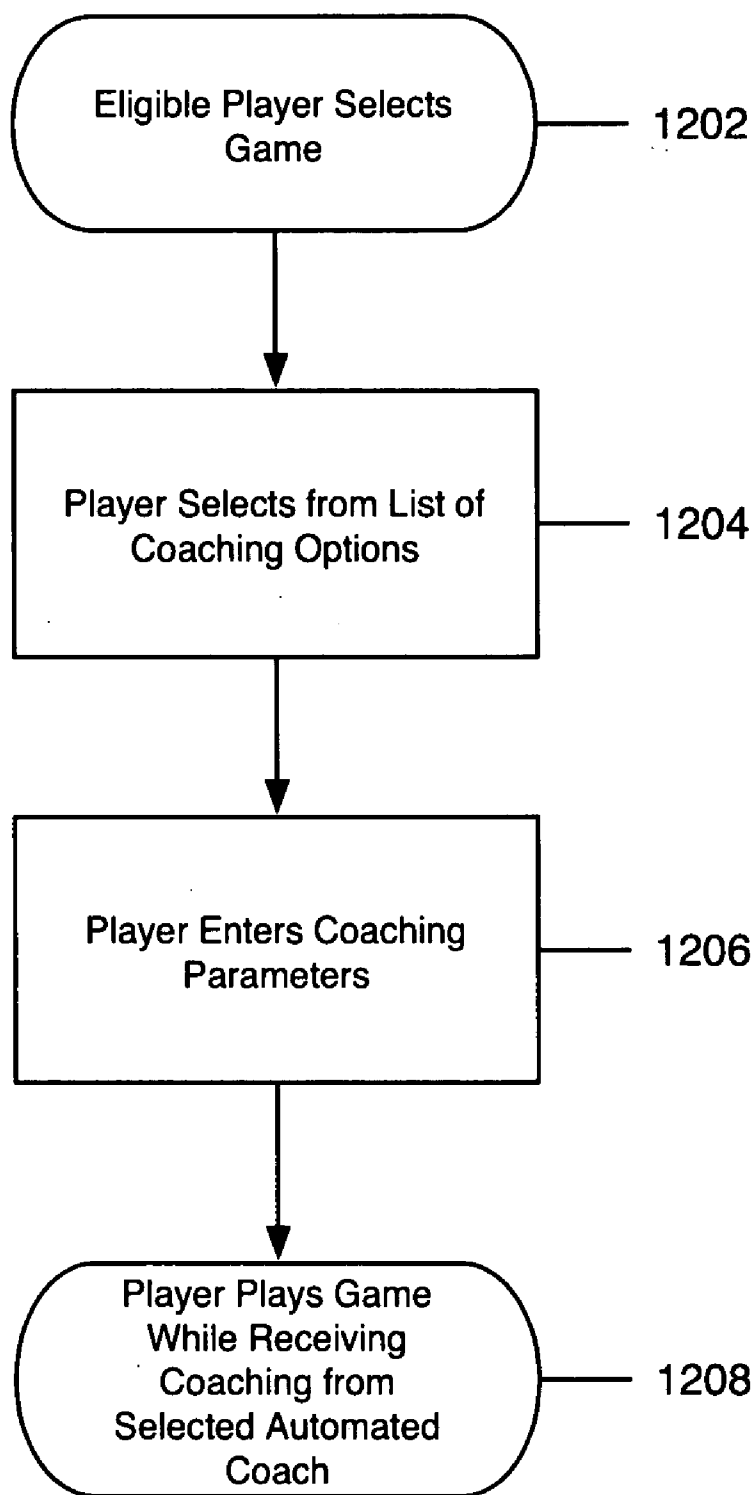


Fig. 13

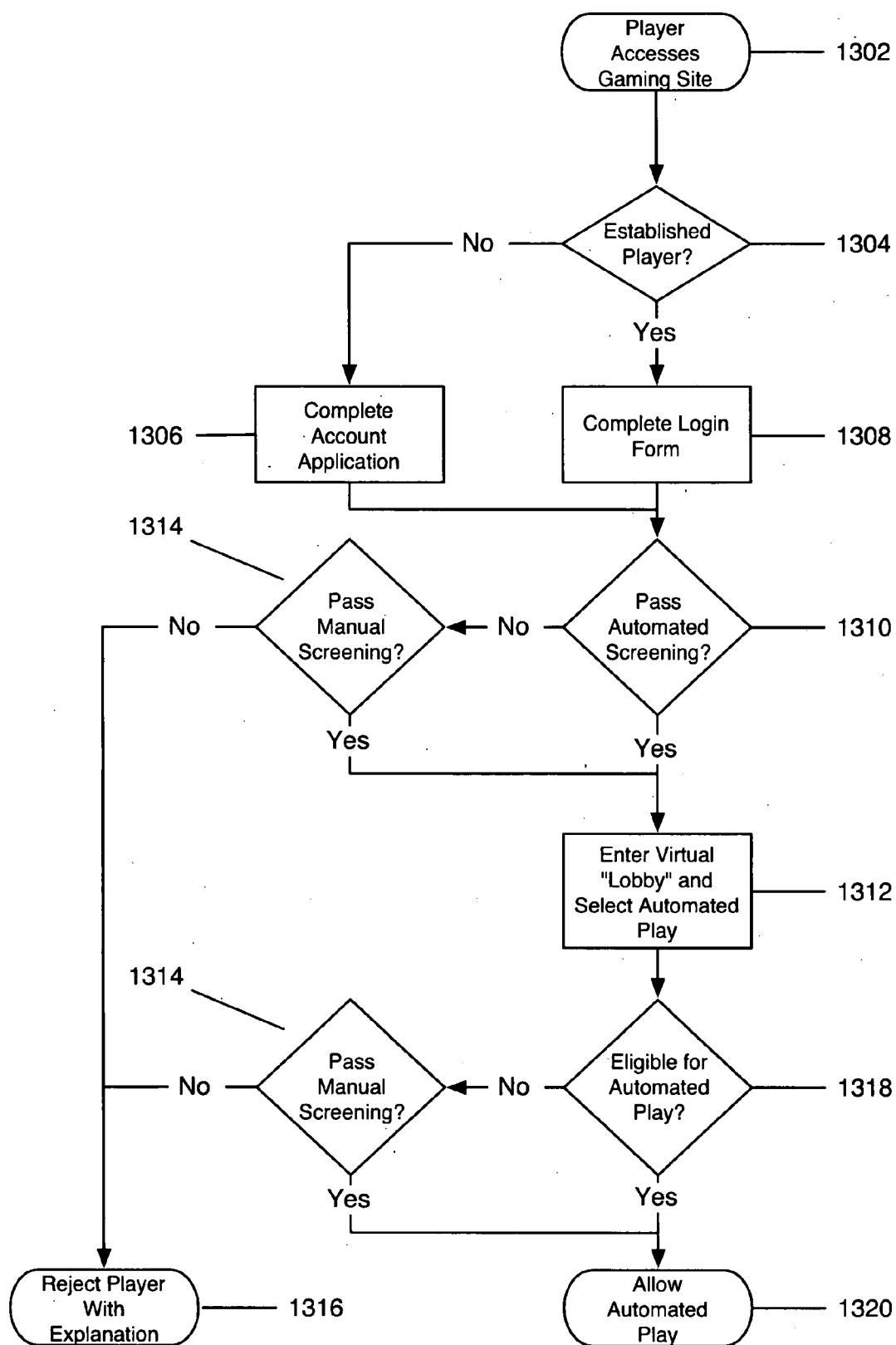
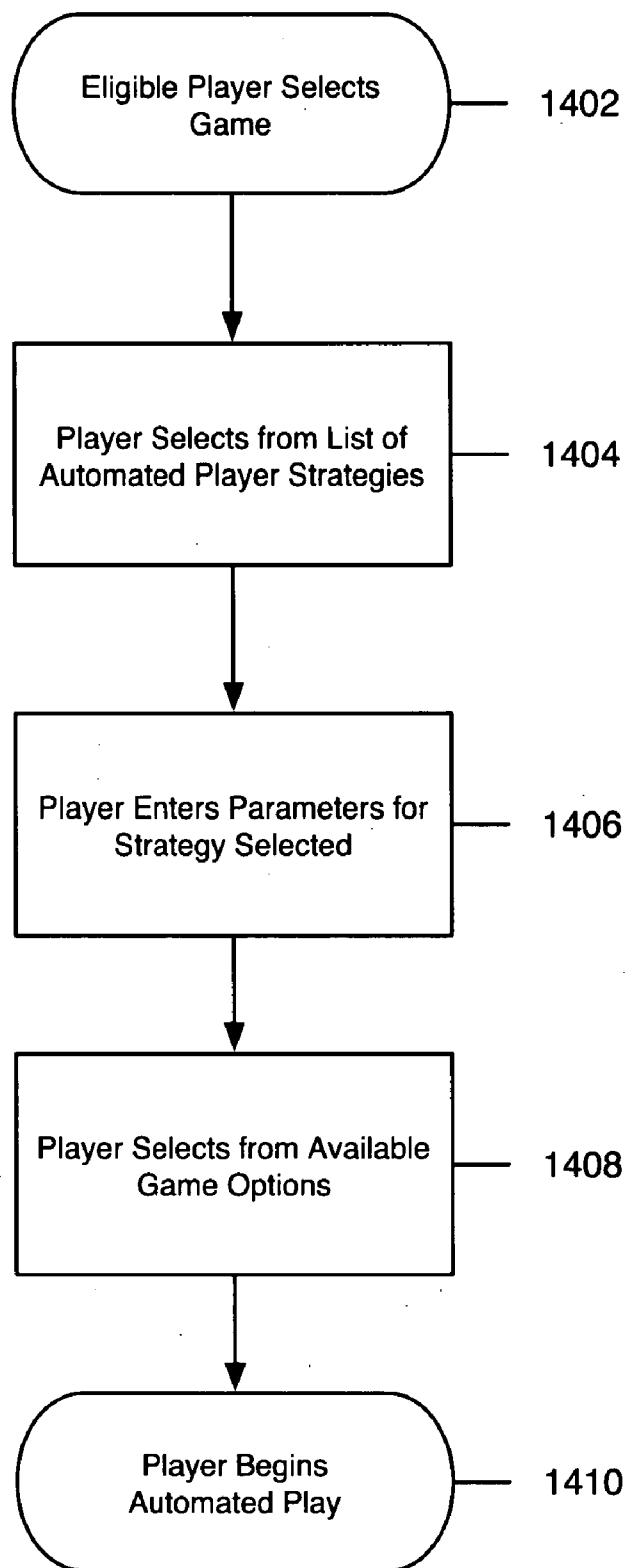


Fig. 14



AUTOMATED METHOD AND SYSTEM FOR A GAMING OPPORTUNITY

[0001] This application claims the benefit of U.S. Provisional Application Ser. No. 60/907,825, filed on Apr. 18, 2007, which is expressly incorporated by reference herein.

RELATED APPLICATIONS

[0002] This application is related to U.S. patent application Ser. Nos. [Attorney Docket Nos. 068042-5002 and 068042-5004], which also claim the benefit of U.S. Provisional Application Ser. No. 60/907,825.

FIELD OF THE INVENTION

[0003] The present invention relates to a method and system for electronic gaming, and in particular, to multiple jurisdiction electronic gaming with remote access capability.

DISCUSSION OF THE RELATED ART

[0004] Over the span of a few short years, advancements in computer networks and communication technology have bridged the physical gap between users. In particular, the Internet has gone from a highly specialized quasi-public computer network used by a relatively narrow group of individuals and institutions to a broadly based worldwide web that touches upon the daily lives of hundreds of millions, if not billions, of individuals, businesses and other entities across the globe. The explosive growth of the Internet has brought with it an equally expansive growth of its use for exchanging and sharing information, providing services and conducting commercial or business transactions. Business transactions conducted over the Internet provide individuals across the world the ability to shop for a wide variety of goods and services, offered by countless different businesses and commercial operations, merely through the use of a personal computer connected to the Internet by way of a standard modem. The Internet, and to a lesser extent intranet local area networks, have caused rapid growth in the desire for various online gaming opportunities, from role playing games (RPGs) in expansive virtual worlds to competitive games pitting one player against another.

[0005] Gambling in the U.S. is controlled by federal and state laws and regulations. Most countries throughout the world also have regulations restricting gambling. Despite strict and heavy laws and regulations, there are now at least 38 states with card rooms. California, for example, has approximately 100 facilities with card tables. Gaming facilities are also introducing electronic card game tables. The electronic tables allow for electronic interaction between the house and the players as well as electronic interaction between players.

[0006] As briefly discussed above, gambling is a highly regulated activity, as most governmental jurisdictions throughout the world believe that, if not controlled, it can have detrimental effects on society. The gating factor for many regulators is the degree of skill involved in the game. Where less skill is required, (i.e., more chance than skill), such as with a wheel of fortune, regulators generally feel more restriction is required. Where more player skill is required to participate, regulators, though cautious, are relatively less stringent. In many jurisdictions, most card games are considered games of skill, not chance.

[0007] In California, a card gaming facility may charge a fee for use of the table, but may not take a percentage of a pot. Accordingly, in order to maximize profits, gaming facilities attempt to maximize the number of players participating in the game. This strategy generally holds true in other jurisdictions as well. With revenues tied to the number of players, facilities need ways to enable players to play even when enough players are not physically present in the facility. Therefore, with the increased usage of the Internet, and with the advent of sophisticated LAN (i.e., local area network) or WAN (i.e., wide area network) Intranets, the advantages of providing an efficient, reliable and secure method for a gaming facility to allow players to participate in a card game, locally or via remote access, may be desirable to increase the number of players, thereby potentially increasing house profits. Moreover, because such a system would not require the player to be present at the card table, the player may be elsewhere, perhaps eating a meal, enjoying a show, relaxing in another lounge, etc., thereby increasing play time and player enjoyment.

[0008] Online gaming with gambling elements, however, requires strict and accurate ways to verify players' credit, the types of games they can play, and especially their eligibility to play—many times based on player age and location. Because of the highly regulated environment and eligibility rules that vary from jurisdiction to jurisdiction, a need exists for a secure, timely, dynamic credit checking, age verification, location verification, account establishment system that detects ineligible players while minimizing the risk of losing an eligible player and maximizes use of the many variables that come into play when evaluating potential players coming from multiple jurisdictions, ages, backgrounds, experience levels and the like.

SUMMARY OF THE INVENTION

[0009] Accordingly, the present invention is directed to a method and system for electronic gaming, and in particular, to multiple jurisdiction electronic gaming with remote access capability.

[0010] Embodiments of the invention provide a system and methods for online gaming of card games and other games of skill, with players able to play with each other while located in one or more locations in one or more gaming jurisdictions. The present invention provides a system and method for online gaming for players physically located in one or more locations and/or within one or more gaming jurisdictions via an Intranet or the Internet. Exemplary embodiments include applying the system and method of the present invention to electronic card games, such as poker, pai gow, blackjack, and the like. The system can also be applied to other games of skill without departing from the scope of the invention.

[0011] One exemplary embodiment includes a system and method for a gaming facility to evaluate a card player user in order to facilitate a "cost of annoyance" informed decision as to whether the facility will allow the player to establish a player's account or participate in gaming activities at a particular point in time. The decision may be based on dynamic house weighting factors including, for example, the locale of the facility, the applicable jurisdictional rules and regulations, the player's age, the player's history, at least one of the player's credit ratings, the time of day, the proposed period of play, and the like. According to exemplary embodiments of the invention, a gaming facility may have an automated credit checking system that calculates a cost of annoyance calculation.

tion for prospective players, thereby preventing the loss of preferred players due to false credit reports, errors, oversights and the like. Depending on the classification of the player, a player may be restricted to a particular play methodology (rules) and strategy, or provided strategic coaching.

[0012] The invention reduces the manual processing used to establish eligibility, thereby reducing processing costs, provides more accurate results by increasing the number of factors considered in determining eligibility, minimizes adverse effects from false positive and negative results, and allows for refinements in player classification that may result in restrictions in activity (e.g., enforced strategy) and/or provision of assistance (i.e., coaching) rather than simply denying service to the player.

[0013] To achieve these and other advantages in accordance with the purpose of the present invention, as embodied and broadly described, a method of applying for a gaming opportunity includes the steps of accessing a server for the gaming opportunity through a player device, providing identification data to the server, and receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least one decision model to generate the score, the disparate player data obtained from a plurality of data sources.

[0014] In another aspect, a system for a gaming opportunity includes a player device in communication with a server, the player device providing identification data to the server, and receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least one decision model to generate the score, the disparate player data obtained from a plurality of data sources.

[0015] In yet another aspect, a computer program product comprising computer readable medium having stored thereon computer executable instructions that, when executed on a computer, causes the computer to perform a method of applying for a gaming opportunity includes the steps of accessing a server for the gaming opportunity through a player device, providing identification data to the server, and receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least one decision model to generate the score, the disparate player data obtained from a plurality of data sources.

[0016] It is to be understood that both the foregoing general description and the following detailed description are exemplary and explanatory and are intended to provide further explanation of the invention as claimed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] The accompanying drawings, which are included to provide a further understanding of the invention and are incorporated in and constitute a part of this specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention. In the drawings:

[0018] FIG. 1 illustrates an exemplary system architecture of the present invention;

[0019] FIG. 2 illustrates an exemplary embodiment of the process for opening a new account in accordance with the present invention;

[0020] FIG. 3 illustrates an exemplary embodiment of an account verification process in accordance with the present invention;

[0021] FIG. 4 illustrates an exemplary embodiment of an account verification process incorporating a manual screening in accordance with the present invention;

[0022] FIG. 5 illustrates an exemplary embodiment that determines jurisdictional requirements and screens players against determined jurisdictional requirements in accordance with the present invention;

[0023] FIG. 6 illustrates an exemplary embodiment using business rules to screen players in accordance with the present invention;

[0024] FIGS. 7A and 7B illustrate an exemplary embodiment using a composite score to determine eligibility in accordance with the present invention;

[0025] FIG. 8 illustrates an exemplary embodiment that calculates a cost of annoyance in accordance with the present invention;

[0026] FIG. 9 illustrates an exemplary embodiment for gaining access to a gaming system in accordance with the present invention;

[0027] FIG. 10 illustrates an exemplary embodiment of a more detailed view of a sign-on process in accordance with the present invention;

[0028] FIG. 11 illustrates an exemplary embodiment allowing a player to "bank" a game in accordance with the present invention;

[0029] FIG. 12 illustrates an exemplary embodiment providing automated coaching tips to players in accordance with the present invention;

[0030] FIG. 13 illustrates an exemplary embodiment that determines whether a player is eligible for automated play in accordance with the present invention; and

[0031] FIG. 14 illustrates an embodiment allowing automated player play in accordance with the present invention.

DETAILED DESCRIPTION OF THE EMBODIMENTS

[0032] Reference will now be made in detail to the exemplary embodiments of the present invention, examples of which are illustrated in the accompanying drawings.

[0033] The present invention is directed to a method and system for electronic gaming, and in particular, to multiple jurisdiction electronic gaming with remote access capability. In accordance with the present invention, a system and methods for providing automated account verification and approval, automated and manual player eligibility screening, automated jurisdictional regulatory compliance, automated player strategy enforcement and automated player coaching for online card games are disclosed.

[0034] System Architecture

[0035] FIG. 1 illustrates an example of system architecture in accordance with the present invention. Through a data communications network (100), such as connections to the Internet and/or through connections to LAN or WAN intranets, multiple players may participate in a gaming opportunity, such as a card game, locally or via remote access. The data communications network, such as a connection to the

Internet and/or Intranet, for example, can be secure or non-secure. In the embodiment shown, players in multiple jurisdictions and multiple locations within jurisdictions are connected to each other via a data communications channel. By allowing electronic access to a gaming opportunity, such as a card game, for example, players may play in multiple games, thereby increasing play time, player enjoyment, and gaming facility house revenue.

[0036] Screening and/or play may be coordinated through one or more servers (102) in a gaming center (120). The servers (102) may include one or more database servers, application servers, and web servers (not shown). The one or more servers (102) may be centralized with all functions and data consolidated within the gaming center (120). The one or more servers (102) may be centralized in one location or may be on a distributed platform. Other server configurations may be used without departing from the scope of the invention. The gaming center (120) in accordance with the present invention may also have a call center (104).

[0037] The system in accordance with the present invention includes at least one gaming device through which a player gains access to a gaming opportunity. For example, a gaming device may be computer (106), player device (108), or portable gaming device (110). However, other electronic devices may be used without departing from the scope of the present invention. For example, players may play on a computer (106), such as a personal computer (PC), a player device (108), such as an electronic gaming table or gaming kiosk, or a portable gaming device (110), such as a mobile phone or personal digital assistant (PDA). Other electronic device that can connect to the data communications network (100) may be used without departing from the scope of the invention. As used herein, these devices are collectively referred to as player devices. A player device may connect to the one or more servers (102) via Internet, Intranet, LAN, WAN, peer-to-peer, telephone, wireless connections, such as satellite, cellular, wi-fi, and bluetooth, or other communication channels including other interface devices without departing from the scope of the invention. Accordingly, players may be physically located in different gaming jurisdictions (112, 114, 116) but still be connected to each other remotely. Players may play on gaming terminals that are physically connected to each other. Other embodiments of the invention may be used to provide a system and method for online gaming of card game players desiring to play with each other while located in one or more gaming jurisdictions. The system architecture shown in FIG. 1 is exemplary only and is not intended to be limited to what is shown.

[0038] New Account Generation

[0039] FIG. 2 illustrates an exemplary embodiment of the process for opening a new account in accordance with the present invention. In the embodiment shown, the player completes a new account application (202). The server(s) (102) then checks the application for valid player data entries (204). Examples of valid entry checks include (a) ensuring that entries have been made in all required fields, (b) ensuring that the contents of a field is in the proper format (e.g., e-mail address contains text with no spaces, followed by an "@" character, followed by text with no spaces, followed by a period, followed by text with no spaces), and (c) verifying the data entered using an independent source (e.g., address is verified using a U.S. Postal Service database). The application is then screened by one or more applicable eligibility algorithms (206). Eligibility algorithms include, but are not

limited to, checking jurisdictional eligibility, age eligibility, regulatory or player exclusion lists, and credit eligibility. In other embodiments, players may also be screened for eligibility based on player skill level, and/or any history of using impermissible playing methods (e.g., counting cards).

[0040] In the embodiment shown, an application that has passed the eligibility algorithm screening (206) is then screened by a cost of annoyance algorithm (208). An exemplary embodiment of the cost of annoyance algorithm is described below in reference to FIGS. 7A and 7B. If the new account application passes the annoyance algorithm screening (208), the new account application is checked for compliance with house rules (210). Non-limiting examples of house rules include screening for a minimum cost of annoyance score separately or in combination with other eligibility scores, which are described in detail below. Other house rules may be used, and may vary from establishment to establishment. For instance, a player may be ruled out based solely on the fact that data entered in the application was proved false through a third party data verification process. Once the application is found to be in compliance with house rules, the application is accepted (212).

[0041] In an alternative exemplary embodiment shown in FIG. 2, the system of the present invention allows for manual reviews any time an application does not pass an automated screening. For example, if the application fails the eligibility algorithm screening (206), the application is submitted for manual review (214). The application may be screened by a manual reviewer for potential subjective criteria that may not have been appreciated by the algorithm screening process (i.e., 206, 208). Upon manual review, the application may then be accepted (212) or rejected (218). Likewise, if the application is found not to comply with house rules, it may be manually reviewed (214). The manual reviewer then decides whether to accept the application (212) or reject the application (218).

[0042] Account Verification

[0043] FIG. 3 illustrates an exemplary embodiment of an account verification process in accordance with the present invention. In the embodiment shown, the system of the present invention determines whether a player is a new player on the system or a returning player (302). New players are invited to open a new account (304). The system prompts the new player for player-specific information, for example, through the new account application process as described above in reference to FIG. 2 and/or submission of documentation, such as copies of government identification and money transfer information. Other data may also be used without departing from the scope of this invention. If the player is an existing player, the player is prompted to verify player data by providing personal information attributable only to the player, such as passwords, the correct answer or answers to personal information questions, biometric data, and the like (306).

[0044] Once an existing player verifies player data (306) or a new player completes a new account application (304) and is approved, the player is automatically screened for compliance with system-determined criteria (308). Non-limiting examples of data used to screen the player for compliance with system-determined criteria include credit reports, IP address of the player device used to request a session or new application, the ID of the player device used, gaming facility databases, reverse email directories, and public records. Other information may be required and/or provided without

departing from the scope of the present invention. Examples of screening criteria include, but are not limited to, location, age, credit score, and whether the player provides the correct answer or answers to personal information questions.

[0045] Screening may also include the collection of non-intrusive data. Examples of non-intrusive data include credit reports, information from public records, the IP address from which the account request originated, the ID of the player device from which the account request was sent, the system's internal database or history, and reverse email directories. The player's Media Access Control (MAC) address or device serial number may also be used. A MAC address is assigned by a manufacturer for uniquely identifying a particular physical network internet card used by a computer or electronic device to access the Internet or Intranet. Existing databases may be used to ascertain a country in which the device was purchased to a certain degree of accuracy to help screen out ineligible players located in foreign countries. Similarly, a computer's serial number may be requested as part of the new player application process, and may be obtained independently by the screening application. The serial number may be looked up in a database to verify a player's location and/or identify stolen player accounts.

[0046] If the player does not pass the automatic screening, the player account is manually screened (310). Manual screening is discussed in further detail below with reference to FIG. 4. Accounts that pass automatic screening are also randomly selected for manual screening (312). If a manually screened account fails, the account data is sent to a declined account feedback module (314) and the player account is denied (316). If an account passes screening, manual or automatic, the account data is sent to an accepted account feedback module (318) and the account is accepted (320). The embodiment described is exemplary only, and the invention is not intended to be limited to what is shown. For example, in other embodiments, screening may be only partially automatic, or entirely manual.

[0047] FIG. 4 illustrates an exemplary embodiment of an account verification process incorporating a manual screening in accordance with the present invention. In this embodiment, if the account or account application fails to meet one or more account criteria (e.g., the eligibility or the annoyance algorithm criteria), the account or application is manually reviewed. A gaming facility may choose to reject a player without manual screening depending on the results of the automatic screening (e.g., the composite score is above a particular threshold or the cost of annoyance is below a particular threshold). An account that passes automatic screening may also be randomly selected for manual screening.

[0048] In the embodiment shown, a score is received (402) and an account is evaluated to determine whether manual review is desired (404). Manual review may require live player contact, with the player being asked to submit to a manual review (406). If the player refuses a manual review, the account is rejected and service is refused (408). If the player accepts, the documents provided to show player age and location eligibility are manually reviewed (410). If the player age and location information meet system criteria, the manual reviewer approves the transaction (412). If the application fails the document only manual screening, the application may undergo manual information verification screening (414). The gaming facility may determine the weight given to this manual review. In this screening, the manual reviewer performs a more detailed review of the account

application information and has the ability to modify the data entered by the automatic screening process. Fields in the manually screened application may be changed, updated, or augmented. Manual information verification screening (414) includes consideration of one or more of a player's oral arguments for why he or she should be eligible, manually collected additional information (e.g., applicant's current employment), the player's reputation among other establishments (e.g., player skill level, use of prohibited play methodologies, public behavior, the number of other players the player may attract), and individual judgment as to the player's worthiness. Manual information verification screening (414) may be performed by one or more people experienced in gaming facility operations, marketing or consumer credit. It may also involve reviewing of all of the pieces of information thus far collected on a player (and sometimes requesting additional information like current bank statements), to determine whether the player is eligible.

[0049] If the player fails manual information verification screening (414), the application or account is declined and service is refused (408). If the application passes the manual information verification, the system checks to see if data was modified (416). If data was modified, the manually screened application is placed back into the automated screening process (418). If no data was modified, the transaction is allowed (412). As a final step, whether the account is allowed or rejected, the screening results are input into a model feedback process (420). The embodiment shown is exemplary only. For example, in other embodiments, the house may choose whether to accept or reject an account even if it passes manual screening. In other embodiments, accounts may be selected for the manual verification process without regard to the score. This can be used to validate the results of and provide feedback to automated processes.

[0050] Jurisdictional Screening

[0051] FIG. 5 illustrates an exemplary embodiment in accordance with the present invention where jurisdictional requirements are determined and players are screened against the determined jurisdictional requirements. In the embodiment shown, each of the screening requirements must be satisfied or the player request is denied, and the request and reason for denying the request are logged. However, other variations may be implemented without departing from the scope of the present invention.

[0052] As shown in the exemplary embodiment of FIG. 5, when a player requests entry (502), the system checks to see if the player has an account (504). If the player account exists, the system checks to see if the player is in an authorized jurisdiction (506). The criteria for an authorized jurisdiction may be determined based on the location of the gaming center (120). If the player is in an authorized jurisdiction, the system of the present invention checks to see if the player is in an authorized location within the jurisdiction (508). The system also checks to see if the player is utilizing an authorized device for accessing the system (510). Authorized devices may vary from jurisdiction to jurisdiction. Non-limiting examples of authorized locations may include a gaming facility, retail outlet, or even a home. Players may play on a computer, an electronic gaming table, kiosk, a portable gaming device, or any other electronic device that can connect to a data communication network. Other non-limiting examples of gaming devices include personal digital assistants (PDAs) and mobile phones. The player device may connect to the

server via Internet, Intranet, LAN, WAN, satellite, telephone, or other communication channels or interface devices.

[0053] As discussed above, some non-limiting examples of information the system of the present invention may use to determine if the player meets jurisdictional requirements include, but are not limited to, (a) the IP address from which the account request originated, (b) the ID of the player device from which the account request was sent, (c) the system's internal database or history, and (d) reverse email directories. The player's Media Access Control (MAC) address or device serial number may also be used. Additionally, existing databases that indicate in which country a computer was purchased may be used to help screen out ineligible players located in ineligible jurisdictions. Similarly, the serial number of player devices may be requested as part of the new player application process and may be obtained independently during the screening of the application. The device serial number may be looked up in a database to verify location, and can also be used to identify stolen player identifications. If these criteria are verified, the system of the present invention applies the applicable jurisdictional rules (**512**) and allows play (**514**). If any of the screening process shown in FIG. 5 is found in the negative (i.e., "NO"), or if these criteria are not verified, the system of the present invention denies play (**516**) and logs the reason for disallowance. The number and order of steps shown, and the factors used to determine jurisdictional eligibility in FIG. 5 are exemplary only, and not intended to be limited to the embodiment shown.

[0054] Business Rules

[0055] FIG. 6 shows an example of business rules used to screen players in accordance with the present invention. The exemplary rules shown may be applied to new players or existing players. Each rule may be weighted to indicate its relevant weight in reference to other business rules. The weighting may also be based on whether it is calculated in real time, and/or based on the age of information. In the embodiment shown, the business rules are assigned a relative weight of 1-5. These weightings are exemplary only and not intended to be a limiting feature. Other business rules may be used to examine the aggregate results of other business rules to make a determination, and business rules may be nested. In the example with nested rules, only the final outcome for the outermost rule may be evaluated for simplicity.

[0056] As shown in FIG. 6, the business rules used to determine player eligibility are given the greatest weight because they tend to be absolutes. For example, if a player must be 21 years old to be eligible within a certain jurisdiction, one eligibility business rule would state that the age must be greater than or equal to 21 years, and the rating of the age information available for the player be greater than X. Another example of a business rule might involve a comparison of a certain piece of data to a range of data values observed in other players. For example, if a player requests one or more additional sessions, and the total time played since signing on is greater than 95% (or X number of standard deviations from the mean) of the times observed by all other players in the last three months, this may indicate the player is using a computer program for play, or multiple people are playing on the account. This may be undesirable behavior that could be taken into account during screening.

[0057] In the embodiment shown in FIG. 6, a TRUE value is assigned if the data meets the criteria of the rule and a FALSE if it does not. A base score may be generated between 0 and 1 that can be interpreted similarly to a statistical confi-

dence level and compared to a set threshold. For example, a base score of 0.95 may be set to represent a 95% confidence that a player should not be allowed to utilize the services. In the embodiment shown in FIG. 6, all business rules in the "Reject" category (**602**) are given a base score of 1 for a TRUE result (i.e., data meets the rule criteria) and a 0 for a FALSE result (i.e., data does not meet the rule criteria). TRUE values in all other categories may be looked at in light of other factors before a request is rejected. For other business rules, the base score may be adjusted up or down. For example, business rules in the "Suspicious" category (**604**) may be given a base score of 0.90 for a TRUE outcome, and a zero for a FALSE outcome, with similar modifications for data accuracy rating as in the "Reject" category. All business rules in the "Negative Influence" category (**606**) may be given a 0.5 base score for a TRUE outcome and a zero for a FALSE outcome. Base scores may be adjusted for the data accuracy rating, and the base score may be adjusted up or down for a given rule. If the score assigned for any business rule is 1, a base score of 1.0 is returned by the business rule step. Otherwise, the base score returned by this step may be the average, weighted average (e.g., score multiplied by the business rule weighting value) or other method for summarizing base scores ranging in value from 0 to 1. In the example shown, no base score is assigned for rules in the "Synthetic" or "Informational" categories (**608**, **610**).

[0058] In an alternative embodiment, a base score may be modified based on the estimated accuracy of the data. For example, the base score may optionally be modified by a data accuracy deduction. The amount of the deduction may vary based on the weighting of the business rule used to produce the base score. For example, no deduction is made for base scores resulting from business rules with a 5 weighting. As another example, a deduction of 0.05 may be deducted from a base score calculated from a business rule with a 4 weighting, 0.1 for a business rule with a 3 weighting, 0.15 for a business rule with a 2 weighting, and 0.2 for a business rule with a 1 rating. If the available data is considered unreliable, the base score may be discarded without regard to its business rule weighting.

[0059] Feedback-Based Statistical Modeling

[0060] In various exemplary embodiments, once a base score is generated using business rules, it may be refined using predictive statistical modeling. In one embodiment, computational algorithms may be utilized to calculate the likelihood of someone being ineligible to receive a requested service, represented as a number between 0 and 1. Non-limiting examples of the algorithms that may be used include logistic multiple regression, neural networks, Bayesian classification, variance analysis, and classification trees. In other embodiments, one or more plurality of statistical techniques for evaluating output from several algorithms (e.g., analysis of predicted versus actual outcomes; r-squared and Durbin-Watson scores) may be utilized alone or in combination, selecting the output of the best algorithm.

[0061] In another embodiment, statistical models may utilize historical data (independent variables) in conjunction with actual known outcomes (dependent variables) to train the model and evaluate its effectiveness at predicting results where the outcome is unknown or unexpected. This is referred to as "teaching the model" and is sometimes referred to as an adaptive algorithm. The predictive power of statistical models may be improved by updating the training data utilized to build the predictive model, thereby obtaining new

results. An example of how to achieve this is to incorporate a feedback loop in the calculations. As errors are identified, corrected data may be made available to the modeling process. For example, in the embodiment shown in FIG. 4, the data obtained from manual screening is input into a model feedback process.

[0062] In yet another embodiment, several models may be employed based on their effectiveness at predicting various outcomes for given service requests given the available data about the player. As more data is available, this modeling step can become quite complex. The trained model provides rules or equations that are used to calculate the likelihood that a player is ineligible at that moment in time, based on the available data. A score of 0.95, for instance, would indicate a 95% confidence that this player is ineligible for the requested service. The results of all models are summarized into a single score using a weighted average. Weights may be assigned by the end user based on experience, or by the statistical evaluators mentioned above, or a combination of both.

[0063] The Composite Score

[0064] FIGS. 7A and 7B illustrate an exemplary embodiment of the invention using a composite score to determine eligibility in accordance with the present invention. The composite score in accordance with the present invention incorporates statistical modeling, enabling automatic evaluation of many more factors than simple business rules (e.g., rate of past play, numbers of games played, value of the residence according to public records, etc.). The composite score may incorporate and identify relevant factors previously unknown to those creating the business rules, and provides an evaluation of the risk of providing service, rather than simply evaluating whether a player is eligible. In addition, the exemplary embodiment of the present invention may use statistical modeling to factor in the relevance of missing documents or information. Also, rather than having two possibilities (e.g., eligible or ineligible), the composite score allows for finer granularity in player classification. For example, a player may be restricted to a particular play methodology (rules) and strategy or provided strategic coaching rather than simply denying service to the player. Such player classifications are exemplary only and not limited to those discussed.

[0065] In the embodiment shown in FIG. 7A, the composite score is calculated using one or more of (a) a summarized score returned by the business rule evaluation, (b) a summarized score returned by the best performing statistical model or models, and (c) statistical evaluators for the statistical models used for scores. For example, a new player requests access for the first time or an existing player requests to start a new session (702). Next, the system generates at least one base score using business rules (704). Next, the system generates at least one composite score using statistical modeling (706). The composite score may optionally be displayed with a background report with information on the factors and information used to calculate the composite score (708). The system then determines whether the composite score is acceptable (710). If the score is acceptable play is allowed (712). If the score is not acceptable, it is flagged for manual screening (714).

[0066] In another embodiment, the output may be the average of the business rule and statistical modeling score, though some embodiments may utilize different weighting for each modeling score. In some cases, the weight given to the statistical modeling score may be a function of the statistical evaluators calculated for the underlying model or models. The

weights given to the individual components may also be a function of other automated analysis. For example, other statistical models or variables may be utilized. In other embodiments, multiple composite scores are generated for a single player, with different composite scores generated if, for example, the player elects to play by a certain strategy, only bet in certain ways, or changes some other criteria. Composite score calculations may be performed at any time.

[0067] The composite score may also be used to determine whether to take one or more actions (e.g., whether to allow or disallow play, or allow play but only under certain conditions) based on whether the score is within a particular range. For example, if the composite score is below a certain range, the player is allowed to play any available game. If the composite score is above one range, but below another, the player is allowed to play only certain games, or only play according to one or more set strategies. If the composite score is above another range, the player is denied service.

[0068] In another embodiment, a player may be eligible for a gaming opportunity if the composite score is within a first range, but ineligible if the composite score is within a second range. If the composite score is above a first threshold but below a second threshold, the player is conditionally eligible for a gaming opportunity. For example, as shown in FIG. 7B, if the composite score is in a range at or below threshold A (722), the player is automatically allowed to receive the services requested. If the composite score is in a range above threshold A but below threshold B (724), the data is provided to an end user for manual verification prior to providing the service. If the composite score is above threshold B (726), the player is ineligible. The values of thresholds A and B is adjustable and may be adjusted by a system administrator or a gaming facility representative, for example.

[0069] The composite score of the present invention has several advantages over conventional processes used in the gambling industry today. By using a composite score, business rule processing may be automated. By weighting the business rules, consideration may be given to more subjective factors (such as whether the player is a high roller). Additionally, the composite score may also be used for regulatory compliance or for implementing company policies. Rules used for regulatory compliance or for implementing company policies are typically absolute rules. For example, a player must be over 21, located outside of the United States, or have a balance greater than X on the account. If any one of the regulatory conditions is not met, service may be denied.

[0070] The Cost of Annoyance

[0071] FIG. 8 illustrates an exemplary embodiment that calculates a cost of annoyance in accordance with the present invention. A cost of annoyance is calculated if a player's composite score indicates the player is ineligible to play the requested game. In the embodiment shown in FIG. 8, the system receives the composite score (802) and establishes that the player meets jurisdictional eligibility requirements for play (804). The system then checks the player's credit rating (806). The credit rating check uses traditional metrics known to those skilled in the art in the credit industry, and may also include metrics such as past player history at participating establishments. If the credit rating is sufficient to play the requested game, play is allowed (808). If the credit rating is insufficient to play the requested game, the system calculates the cost of annoyance (810) in accordance with the following equation:

$$COA=b(1-c)-a(d)$$

where b is the potential revenue, $(1-c)$ is the probability the player will not leave, a is the cost of allowing a player to play, and d is the probability the player is ineligible. In another embodiment, the cost of a false positive is calculated by multiplying the cost of allowing an ineligible player to play by the probability that the player is ineligible.

[0072] The system then checks to see if the cost of annoyance is above an approval threshold F (**812**). If the cost of annoyance is above approval threshold F , play is allowed (**808**). If the cost of annoyance is below approval threshold F but above a rejection threshold E , a manual review is performed (**814**). An example of a manual review is provided in the explanation above for the embodiment shown in FIG. 4. If the player passes the manual review, play is allowed (**808**). If the cost of annoyance is below threshold E , or if the player fails manual review, play is disallowed (**816**). The value of thresholds E and F may be adjustable.

[0073] In accordance with the present invention, the cost of annoyance indicates whether it may be profitable to override the composite score and allow a player to play a requested game even if the player's composite score indicates the player is ineligible. For example, even if the player has a poor composite score because of a low credit rating or a history of failing to pay, that player may still bring in many players that generate revenue. While the player's profile may indicate that the player is ineligible for a \$5,000 line of credit, for example, that player may have previously attracted other players who generated \$50,000 of revenue for the gaming facility, for example. Therefore, in this exemplary scenario, even though the player's composite score indicates that the player should be denied service, it would still be profitable to allow that player to play.

[0074] In certain embodiments, the cost of annoyance may be calculated when the player's composite score is within a particular range. For example, if the composite score is above a threshold C but below a threshold D , the system calculates a cost of annoyance. If the cost of annoyance is within a range X , the player is allowed to play. If the cost of annoyance is within a range Y , then service may be denied. If the cost of annoyance is between X and Y , the player may be manually screened for eligibility. The value of thresholds C , D , X , and Y may be adjustable.

[0075] A gaming facility may measure player value by calculating how much revenue the player brought into the establishment in the past and estimating the player's potential value in the future (sometimes referred to as estimated "lifetime value"). Where the gaming facility has a statistical house advantage (i.e., over the long run, a gaming facility is statistically expected to keep a certain percentage of all amounts bet), a player's value is usually measured in terms of a theoretical win (the amount wagered on each type of game played times what the gaming facility is statistically expected to win on the particular game times the number of times an average player plays the game). Where a gaming facility collects only a service charge per game, the individual player's contribution to this charge is used as the theoretical win. Costs such as premiums given to attract the player to play may be deducted from the player's estimated lifetime value.

[0076] The cost of allowing the player to play is based on whether there is any record of fines received or levied as a result of that player, any uncollectible debt already lost to the player, and any history of complaints against the player. The cost of not allowing the player to play is based on revenues that would be lost from refusing to allow the player to play,

calculated from average revenues previously received from the player, estimated revenues that would be received in the future if the player were allowed to play (calculated using the average transactions times the frequency times the number of transactions in a period), and the estimated loss of future additional players referred, based on the number of previous referrals received from the player. Other factors may include the player's line of credit, the number of bad checks written, any outstanding credit balance, how often the player visits, the player's location, and the number of times the player has visited the gaming facility.

[0077] Synthetic False Outcomes

[0078] During the screening process, the screening algorithms may produce two types of errors: (a) false positive and (b) false negative results. A false positive occurs when an eligibility algorithm classifies an ineligible player as eligible. A false negative occurs when an eligibility algorithm classifies an eligible player as ineligible. These errors may result due to faulty inputs or criteria used during the screening process. Calculating a cost of annoyance in accordance with the present invention mediates the risk of false positive scores that allow an ineligible player to play and false negative scores that prevent an eligible player from playing.

[0079] The cost of a false positive (i.e., erroneously allowing a player to play) is relatively simple to calculate because the reasons for denying services to a player are usually clear. For example, if the false positive results in allowing a player with a poor credit rating or an insufficient account balance to play, the gaming facility may have to cover the player's losses. The cost and the risk involved of a false negative (erroneously denying service to an eligible player) may be more difficult to determine. If a gaming facility denies service to an eligible player, the player may become annoyed and take business elsewhere. Not only would the gaming facility then lose the revenue associated with that particular transaction, it would lose revenue from future transactions from the player, and possibly from others to whom the player relates the experience.

[0080] Another category of false positive and false negative conditions occurs when the algorithm produces the correct results (the composite score accurately reflects the risk based on the available inputs), but additional factors were not taken into consideration that may have generated a different result. This is called a synthetic false outcome. A synthetic false outcome may be either a synthetic false positive, or a synthetic false negative. In accordance with the present invention, manual reviews may be used to provide feedback to the model as it is a reliable means of identifying synthetic false positives or synthetic false negatives produced by the automated screening processes.

[0081] A synthetic false positive occurs when a player is rightfully denied play based on the player's composite score, but whose play is still desirable to the gaming facility. Conversely, for example, a synthetic false negative occurs when a player is rightfully allowed play based on the composite score, but whose play is undesirable to the gaming facility. The cost of the false negative is calculated by multiplying the cost of denying an eligible player from playing by the probability that the player is eligible. The cost of denying an eligible player from playing is calculated by averaging the revenue earned from the player in previous gaming sessions. The cost of allowing the player to play is the maximum potential loss to the gaming establishment for the gaming activity requested by the player. If the player is a new player,

calculations may be performed using data from one or more profiles of established accounts of players with player data similar to the new player.

[0082] Play on an Existing Account

[0083] FIG. 9 illustrates an exemplary embodiment for gaining access to the gaming system in accordance with the present invention. As shown in FIG. 9, a player enters a gaming facility (902) and decides to play online (904). The player accesses a terminal to sign on to the system. A terminal is any device that can be used to access the desired game or service. The system of the present invention checks to see if the player already has an account (906). If the player does not, the player is asked to submit an application for a new account (908). A non-limiting example of a procedure for submitting an application for a new account is described above for the embodiment shown in FIG. 2. If the player has an existing account, the player is signed on to the system (910). Once the player signs on, the player account is checked to determine whether it passes one or more screening algorithms (912). The number and type of algorithms used may vary from establishment to establishment. Non-limiting examples include jurisdictional algorithms, credit check algorithms, and the cost of annoyance algorithm. The player could also be screened for a history of use of impermissible playing methodologies, past inappropriate public behavior, and whether the player is listed on any regulatory or exclusion list. If the player account passes the screening algorithms, the transaction is allowed (914).

[0084] Even if the account fails one of more of the screening algorithms, the transaction may still be allowed. If the application fails to meet one or more of the screening algorithms, the player is offered a manual transaction review (916). If the player refuses a manual review, the transaction is refused. If the player accepts, the transaction is manually reviewed (918). If the transaction fails the manual review, the transaction is denied (920). If, however, the transaction passes manual review, the transaction is allowed (914). An example of a manual screening process is described above for the embodiment shown in FIG. 4.

[0085] FIG. 10 illustrates an exemplary embodiment for verifying the eligibility of a player wishing to participate in a game in accordance with the present invention. In this embodiment, players are screened for eligibility and the cost of annoyance. When a player with an existing account signs on to the system (1002), the account is checked for valid entries (1004). Examples of what constitute a valid entry are discussed above for the embodiment shown in FIG. 2. If the account is for a valid player, the player is allowed to select from available game options (1006). If the player is not a valid player, the transaction is rejected (1008). In other embodiments, if the player is not a valid player, the system may invite the player to complete an application for a new account.

[0086] Once a valid player selects an available game option, the transaction is screened by one or more applicable eligibility algorithms (1010). Eligibility algorithms may include but are not limited to jurisdictional eligibility and credit eligibility. Other algorithms may be used and may vary from gaming facility to gaming facility. If the player is eligible, the transaction may then be screened by a cost of annoyance algorithm (1012). An example of the cost of annoyance algorithm is described above for the embodiment shown in FIG. 8. If the transaction passes the annoyance algorithm screening, the transaction is checked for compliance with house rules (1014). Non-limiting examples of

house rules include player skill level, use of playing methodologies prohibited by the house, or a minimum cost of annoyance score. Other house rules may be used, and may vary from gaming facility to gaming facility.

[0087] If the transaction passes all criteria, the account is accepted (1016). If the transaction fails to meet one or more criteria (e.g., the eligibility or annoyance criteria), the transaction may be manually reviewed (1018). If the player refuses a manual review, the transaction is rejected (1008). An example of the manual review process is discussed above for the embodiment shown in FIG. 4. If the transaction fails the manual review, the transaction is rejected (1008). If the transaction passes manual review, the house chooses whether to accept or reject the transaction (1020). Optionally, the manually screened transaction may be placed back into the screening process at the annoyance algorithm section prior to a final decision on whether to accept the transaction.

[0088] Enforced Strategy and Player Monitoring

[0089] FIG. 11 illustrates an exemplary embodiment of the present invention allowing a player to “bank” a game. A player banking a game is called a “player banker.” In the embodiment shown, the player requests entry into the system (1102). Entry is granted through a verification process (1104). In the verification process the player account is screened and a cost of annoyance is calculated. If the account meets screening and cost of annoyance criteria, the player is granted entry into the game (“seated”) (1106). Once seated, the player waits for a sufficient number of players wishing to play. Next, the system of the present invention checks to see if players are satisfied with individual bankrolls (1108). If the players are satisfied with all individual bankrolls, play begins (1110). If the players are not satisfied with all individual player bankrolls, the system of the present invention checks to see if a player is willing to bankroll the game (1112). If a player is willing to bankroll the game (i.e., be a player banker), the player selects an authorized player banker strategy (1114). Once the player selects an authorized strategy, play continues with the player acting as a player banker (1116). If no player is willing to bankroll the game, players may choose to play without a player banker (1118).

[0090] Player bankers are customarily used in jurisdictions where gaming facilities are not able to act as the “house” (i.e., gaming facilities do not collect lost wagers and pay winning wagers but instead collect service fees from players for each game played). In these jurisdictions, one or more of the players must ensure there is enough money to cover all winning bets). For instance, blackjack requires a bank because the players play against the house, as opposed to poker where players play against each other. Sometimes, none of the players acting as the house have enough money to cover a game where every player wins their wager. This usually means that the other players therefore bet less than they desire. To avoid this, in some jurisdictions third party entities with enough money to cover all player wins enter games for the purpose of being the banker. Third party entities typically hire a player, give the hired player enough money to cover all bets, and instruct the player to play using a fixed strategy that gives the player a traditional house advantage. In blackjack, for example, this may mean that the player banker is required to hit on sixteen or below, and stay on seventeen or above.

[0091] Traditionally, a problem exists where player bankers and dealers may reduce profits, break regulations, or even steal because it is difficult to monitor their actual play. Without a way to monitor play, it can be difficult to manage a hired

player banker because there is no adequate way to manage the strategy played or his or her claims as to how much they have won or lost. Accordingly, player bankers and/or dealers are required to play in strict accordance with a particular strategy. The strategy used may be any strategy known to those skilled in the art. Strategies may range from the use of one or more probability charts (e.g., the probability of obtaining a given hand in a card game) to more subjective decisions (e.g., how much to bet based on your opponents' remaining chips). The more well known strategies are found in "Hoyle" or "According to Hoyle" publications. These publications provide card game rules and strategies for hundreds of games.

[0092] In accordance with the present invention, one or more strategies may be incorporated into the system and used to enforce a particular strategy or provide coaching tips based on one or more selected strategies. In one exemplary embodiment, the strategy enforced or the coaching tips provided may be based on one or more of a player's composite scores. In another embodiment, strategies may be enforced or coaching provided as a player approaches regulatory loss limits. In yet another embodiment, if a player opts to be the banker, the system of the present invention forces the player banker to play in a predictable way. The player banker therefore selects the desired automated house rules with which to play. This could be by Hoyle's rules, rules designated by an employer, industry regulations, or one or more of the strategies previously discussed. A non-limiting example of a play strategy is in blackjack where the dealer is often required to take another card on sixteen or less and hold on seventeen or more. In other embodiments of the present invention, the player banker plays according to one or more modeling strategies or according to a specific profile.

[0093] FIG. 11 shows an exemplary embodiment where the player banker identified in the screening process plays according to a specific strategy in accordance with the present invention. The system of the present invention then ensures that the player plays according to the strategy. As an example of how these rules may be enforced, if a player banker in a game of blackjack attempts to hit on a seventeen or higher, the system of the present invention may prohibit the player banker from doing so. Conversely, if the player banker tries to hold on a sixteen or less, the system of the present invention would require that player to draw another card. The system of the present invention would monitor those players and not allow them to play in a way that violates their eligibility criteria.

[0094] This player banker scenario is but one example of how an enforced strategy may be employed in accordance with the present invention. Another example is that a particular player is identified as a novice compared to the others "seated" at the table. An enforced strategy in accordance with the present invention may be imposed on the novice player to improve the player's odds for a particular game. Yet another example of the use of an enforced strategy in accordance with the present invention is where a jurisdiction limits the amount of money that may be lost during a particular period, the player voluntarily asks for such a restriction, or the gaming facility opts to limit play based on the credit rating or other factors. In other instances, the player may only be allowed to play certain games, or only play for a limited time. In those instances, the system may be alerted when a player identified in one of these example categories violates a strategy, and use methods to enforce the strategy, up to and including requiring the player to quit or cash out.

[0095] Player Coaching

[0096] FIG. 12 illustrates an exemplary embodiment of the present invention that provides coaching tips to players. In the embodiment shown, a valid and eligible player selects a game (1202). The player selects automated coaching options from a list of available profiles (1204). The player then enters the selected automated coaching parameters (1206). The player then plays the game while receiving coaching from the selected automated coach (1208).

[0097] Player coaching is a more flexible version of the enforced strategy described in the embodiment shown in FIG. 11. However, rather than requiring play according to one or more strategies, coaching tips or suggestions on how to play according to the one or more strategies are provided to the player. The player is not required to play according to the tips or coaching provided. Coaching may be given based on a player's composite score. For example, if the score falls below a certain range, coaching may be available to the player. Coaching may also be provided if the player has less than a predetermined credit rating. Coaching is similar to the enforced strategy method used on player bankers, except that coaching is a suggested strategy instead of a required strategy. Coaching may also involve providing the player with information to assist in play. In other embodiments, coaching may be made available as a player approaches regulatory loss limits. Coaching tips may also be used to make the player "smarter." For instance, if a player is below a predetermined level of playing experience, the player may find it beneficial to know the chances for being dealt a particular hand based on what has already happened during the game. For example, in blackjack, the player may be coached to hold on a seventeen or higher, and to hit on a sixteen or lower. Players may also receive coaching tips on the odds of drawing a desired card during a game, or of the odds of another player having a better hand. Such tips are exemplary only, and not limited to what is mentioned. Other coaching tips could be based on Hoyle's rules, or other coaching aids known to those skilled in the art.

[0098] Coaching may be made available using computer assisted prompts, by providing the odds of success playing a particular hand, or by providing hints based on one or more playing aids or playing strategies known to those skilled in the art. As a non-limiting example, hints can be packaged up as hints from personalities. For instance, a likeness of a poker celebrity's face may come up and say in a draw poker game, "Well, you have a pair of twos in your hand and an ace. If you draw two cards you have a chance."

[0099] Automated Play

[0100] FIG. 13 illustrates an exemplary embodiment that determines whether a player is eligible for automated play in accordance with the present invention. In the embodiment shown, the player accesses a gaming site (1302) and the system of the present invention checks to see if the player is an established player (1304). If the player is not an established player, the player completes an account application (1306). If the player is an established player, the player completes the login form (1308).

[0101] Once the player logs in, the player account passes through an automated screening process to determine whether the account passes one or more automated screening algorithms (1310). Screening algorithms may vary between gaming establishments. Non-limiting examples include business rule algorithms, statistical modeling algorithms, jurisdictional algorithms, credit check algorithms, and the cost of annoyance algorithm. The cost of annoyance may be used to

screen for the use of impermissible playing methodologies, and may be used to screen for a player's ability to generate revenue for the gaming facility in spite of one or more negative scores. Other variables, such as a player's ability to bring in famous players, may also be considered. If the player account passes the screening algorithms, the player enters a virtual "lobby." From here, the player may select various gaming opportunities. For purposes of example only, the player selects automated play (1312).

[0102] If the player account fails to meet one or more of the screening algorithms, the player account is manually screened (1314). An example of manual screening is discussed above for the embodiment shown in FIG. 4. If the transaction fails the manual screening, service is denied and the player is provided an explanation for the rejection (1316). If the player account passes manual screening, the player enters the virtual "lobby" and, for the purposes of this example, selects a game to play in an automated play mode (1312).

[0103] Once the player selects automated play, the system of the present invention determines whether the player is eligible (and under what conditions, if any) to participate in automated play (1318). In this example, the system of the present invention checks to see if the player possesses the required experience level of experience for the game. Player experience may be calculated based all or in part on player age, the number of that type of game the player has previously played, the total or average player winnings or losses in a given time period, and the average skill level rating of games the player has a history of playing. These factors may be weighted, or used in combination. If the player qualifies, automated play is allowed (1320).

[0104] These factors are exemplary only, and others may be used without departing from the scope of the embodiment shown. For example, player classification may be changed after the player wins or loses a certain number of games and may be automatically or manually updated by the system. In another embodiment, the experience level required to play a particular game is compared to the average experience level of players already in the game. In yet another embodiment, a player may request a change in player classification. In other embodiments, a player's composite score may be used to determine eligibility for automated play. In another embodiment, the cost of annoyance may be used, and an override score may be calculated to determine whether play should be allowed even if the player fails to meet screening criteria.

[0105] FIG. 14 illustrates an exemplary embodiment of an eligible player playing in an automated play mode in accordance with the present invention. Once a player is determined to be eligible for automated play, the player may enter the desired parameters and play in the automated play mode. In this embodiment, the eligible player selects from an option of games available for automated play (1402). The player then selects from a list of available automated play strategies (1404). The player then enters the selected automated play parameters (1406). Next the player selects one or more game options from a list of options available to the player (1408). In the example embodiment shown, the list of available game options depends upon a player's composite score or other eligibility criteria. If the eligibility processes place a player in the proper category, he or she may choose from a list of available strategies (e.g., use standard house rules for blackjack—hit on 16, stay on 17) put in parameters to govern the play (e.g., average bet, buy-in, how many games to play,

minimum and maximum bankroll to end play) and the game software plays the game according to this parameter (1410). In certain embodiments, the player may choose to participate in several games at once. The player may allow play to continue unmonitored, or the player may monitor the game. The player may elect to play a certain number of hands, to play until a certain amount is won or lost, or some other criteria chosen by the player and/or the system. Although the exemplary embodiments described herein may be described in reference to specific games, other gaming scenarios are also possible. For example, the invention is equally applicable to other card games, such as pai gow, and blackjack. Automated play may be used in other games as well.

[0106] Although several embodiments of the present invention and its advantages have been described in detail, it will be apparent to those skilled in the art that various modifications and variations can be made in the system and method of the present invention without departing from the spirit or scope of the invention. Thus, it is intended that the present invention cover the modifications and variations of this invention provided they come within the scope of the appended claims and their equivalents.

We claim:

1. A method of applying for a gaming opportunity, comprising the steps of:
 - accessing a server for the gaming opportunity through a player device;
 - providing identification data to the server; and
 - receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least one decision model to generate the score, the disparate player data obtained from a plurality of data sources.
2. The method of claim 1, wherein the step of accessing the server includes analyzing user-specific information.
3. The method of claim 1, wherein the step of accessing the server includes checking whether the server is accessed from an authorized jurisdiction.
4. The method of claim 1, wherein the step of accessing the server includes checking whether the server is accessed from an authorized location within a jurisdiction.
5. The method of claim 1, wherein the step of accessing the server includes checking whether the server is accessed using an authorized player device.
6. The method of claim 1, wherein the step of accessing the server includes checking one or more of
 - as IP address from which the server is accessed,
 - a Media Access Control (MAC) address of the player device used to access the server,
 - a serial number of the player device used to access the server,
 - reverse email directories, and
 - gaming facility databases.
7. The method of claim 1, wherein the disparate player data is validated by verifying the player data using at least one independent data source.
8. The method of claim 1, wherein the business rule includes jurisdictional requirements.
9. The method of claim 1, wherein the business rule includes age requirements of the player.

10. The method of claim 1, wherein the business rule includes an exclusion list.

11. The method of claim 1, wherein the business rule includes a player skill level requirement.

12. The method of claim 1, wherein the business rule includes a cost of annoyance.

13. The method of claim 1, wherein the business rule includes a history of use by the player of impermissible playing methods.

14. The method of claim 1, wherein weights for the weighting is adjustable.

15. The method of claim 1, wherein the player data are weighted based on age of the player data.

16. The method of claim 1, wherein the player data are weighted based on accuracy.

17. The method of claim 1, wherein regulatory criteria are given the greatest weight.

18. The method of claim 1, wherein the player data are weighted based on comparison to a range of values observed in other players.

19. The method of claim 1, wherein nested business rules are used to weight the player data.

20. The method of claim 1, wherein the at least one decision model includes a feedback loop.

21. The method of claim 1, wherein the at least one decision model includes predictive statistical modeling.

22. The method of claim 1, wherein the at least one decision model includes an adaptive algorithm.

23. The method of claim 22, wherein the adaptive algorithm is at least one of a logical multiple regression, a neural network, a Bayesian classification, a variance analysis, and a classification tree.

24. The method of claim 1, wherein the composite score includes at least one base score.

25. The method of claim 24, wherein the base score is adjustable based on any one of

- (a) weight of the player data used to calculate the base score,
- (b) accuracy of the player data used to calculate the base score,
- (c) age of the player data used to calculate the base score, and
- (d) completeness of the player data used to calculate the base score.

26. The method of claim 1, wherein the composite score includes an averaged base score.

27. The method of claim 26, wherein at least one composite score is calculated as an average of at least two base scores.

28. The method of claim 1, wherein the indication of eligibility indicates that the player is eligible for the gaming opportunity if the composite score is within a first range.

29. The method of claim 1, wherein the indication of eligibility indicates that the player is ineligible for the gaming opportunity if the composite score is within a second range.

30. The method of claim 1, wherein the indication of eligibility indicates that the player is conditionally eligible for the gaming opportunity if the composite score is above a first threshold but below a second threshold.

31. The method of claim 30, wherein the first and second thresholds are adjustable.

32. The method of claim 1, wherein a cost of annoyance is determined if the composite score is within a second range.

33. The method of claim 32, wherein the cost of annoyance is based on at least one of a cost of allowing the player to play,

a cost of not allowing the player to play, and probability of losing future revenue from the player.

34. The method of claim 32, wherein the cost of annoyance is determined based on estimated player revenue, probability that the player will not leave, cost of allowing the player to play, and probability that the player is ineligible.

35. The method of claim 34, wherein the estimated player revenue is calculated based on a theoretical win per game and number of times an average player plays a game.

36. The method of claim 32, wherein the player is indicated as eligible for the gaming opportunity if the cost of annoyance is within a third range.

37. The method of claim 32, wherein the player is indicated as ineligible for the gaming opportunity if the cost of annoyance is within a fourth range.

38. The method of claim 32, where the player is manually screened for eligibility of the gaming opportunity if the cost of annoyance is between a third and fourth threshold.

39. The method of claim 32, wherein the step of determining the cost of annoyance includes subtracting the cost of a false positive from the revenue lost from not allowing the player to play.

40. The method of claim 39, wherein the step of determining the cost of annoyance includes subtracting cost of a false negative from the cost of allowing the player to play.

41. The method of claim 30, wherein the indication of eligibility is conditioned on the player receiving coaching during play.

42. The method of claim 41, wherein coaching is provided according to at least one gaming strategy.

43. The method of claim 41, wherein coaching is provided if a player has less than a predetermined credit rating.

44. The method of claim 41, wherein coaching is provided to a player below a predetermined level of playing experience.

45. The method of claim 41, wherein coaching is provided from a compilation of tips from at least one gaming celebrity.

46. The method of claim 30, wherein the indication of eligibility is conditioned on the player having to play according to at least one predetermined gaming strategy.

47. The method of claim 46, wherein the at least one predetermined gaming strategy is required if the player is below a predetermined level of playing experience.

48. The method of claim 46, wherein the player is monitored for compliance with the at least one predetermined gaming strategy.

49. The method of claim 28, wherein the player with at least one composite score within the first range is allowed to play in an automated playing mode.

50. The method of claim 46, wherein the player playing according to the at least one predetermined gaming strategy is allowed to play in an automated playing mode.

51. A system for a gaming opportunity, comprising:

a player device in communication with a server, the player device providing identification data to the server, and receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least

one decision model to generate the score, the disparate player data obtained from a plurality of data sources.

52. A computer program product comprising computer readable medium having stored thereon computer executable instructions that, when executed on a computer, causes the computer to perform a method of applying for a gaming opportunity comprising the steps of:

accessing a server for the gaming opportunity through a player device;

providing identification data to the server; and

receiving an indication of eligibility for the gaming opportunity from the server based on at least one composite score indicative of a scale of eligibility for the gaming opportunity, the composite score obtained by weighting disparate player data based on at least one business rule and applying the weighted data to at least one decision model to generate the score, the disparate player data obtained from a plurality of data sources.

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