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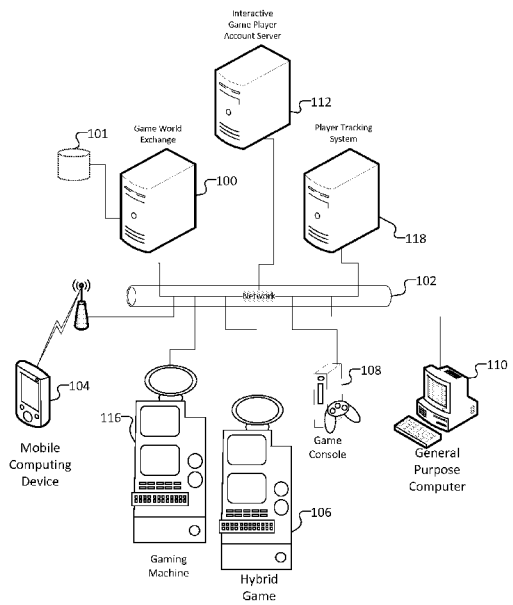


Fig. 1

(57) Abstract: A game exchange for exchanging game world credits or game world objects between different kinds of interactive games. The game exchange maintains a set of exchange tables determining an exchange rate between the game world credits or the game world objects for the different interactive games. The interactive games may be components of a hybrid game having both an interactive component and a game of chance. In addition, the game world credits or game world objects may be exchanged for player points in a player tracking system for a conventional casino or the like.

WO 2012/139083 A1

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MANAGEMENT SYSTEM FOR SKILL-BASED COMPONENT AND GAME OBJECTS OF GAMES IN A CASINO APPLICATION

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims the benefit of U.S. Provisional Patent Application No. 61/516,693, filed April 6, 2011 and U.S. Provisional Patent Application No. 61/630,180, filed December 6, 2011, the contents of each of which are hereby incorporated by reference as if fully stated herein.

BACKGROUND OF THE INVENTION

Field of the Invention

[0002] The present disclosure relates to gaming, and more specifically to gambling using interactive entertainment games.

Background

[0003] The gaming machine manufacturing industry provides a variety of gaming machines to enable wagering for interested parties whilst providing an entertainment experience. An exemplary gaming machine is a slot machine. As the demographic of eligible players has shifted with time to newer generations who have grown accustomed to highly sophisticated graphics and interactive games, a need has arisen to increase the entertainment content present on a gaming machine to keep it relevant, to a growing portion of a casino's patronage.

[0004] Conventional interactive games include a crediting system wherein a player of the interactive game accumulates credits and awards for achieving certain levels within the game, taking certain actions, etc. In addition, the player may acquire game objects that are useful to the player in playing a game. Typically, these game objects become more powerful and/or desirable the as the game player advances through the game.

[0005] However, a conventional interactive game does not have the capability of importing or exchanging credits and objects with other types of interactive games. Furthermore, conventional interactive games cannot exchange credits with gaming machines or gaming systems, such as player tracking systems.

SUMMARY

[0006] The present disclosure is directed to a form of gaming machine, designed for use in a physical or virtual casino environment, that provides players an environment in

which to play for cash, prizes and points, either against the casino or in head to head modes in a controlled and regulated manner while being allowed to use their skills and adeptness at a particular type of game. An example of such a game would be a challenging word spelling game, or an interactive action game such as is found on video game consoles popular today, such as a PlayStation®, an Xbox®, a Wii® or a PC based game.

[0007] This design, therefore, relates generally to an interactive entertainment game where skill and chance may coalesce to provide a rich gaming experience, visually exciting and challenging, where players may wager cash, credits, prizes and points in order to win more of the foregoing.

[0008] The present disclosure is also directed to a system for application with a casino gaming environment that manages skill-related credits or game world objects acquired by game players in the context of a single-player, multi-player cooperative and/or head-to-head environment in which the participant(s) win cash and credits as a result of their play activity within the environment. The system allows credits and objects acquired across disparate games in disparate locations and/or across disparate operators, to flow seamlessly across these boundaries.

[0009] In addition, the system manages the accounts for and exchanges of a type play points or credits, herein termed Game World Credit (GWC), or Game World Objects (GWOs) that accrue to players as a function of their demonstrated skill within an interactive game, such as a video game, or a gaming machine having an interactive game component, etc. Within an interactive game, GWC or GWOs are accrued and/or consumed during play of the interactive game. In the case of a gaming machine having an interactive game component, the gaming machine operates on and/or accrues or consumes two forms of "currency", the first currency being a type of Real world Credit (RC), such as legal tender, credits in an account, tokens redeemable for credits or legal tender, etc., and a second currency being GWC, the gaming machine including a traditional game of random chance playing for the RC which functions in concert with a skill-based interactive game playing for the GWC, such a gaming machine herein termed a hybrid game.

[0010] In one aspect, one or more games are operatively connected in various arrangements through a Wide Area Network (WAN) or a Local Area Network (LAN) to one or more servers that control various aspects of a gaming environment. For example, the one or more servers provide gaming regulatory body monitoring, financial accounting and forms of player monitoring or player tracking for marketing purposes.

[0011] In another aspect, the system interfaces to each of the aforementioned games, other computer devices, as well as existing casino management software, and provides a game world exchange across disparate games, gaming environments (e.g. casino floors, the internet in country X, the internet in country Y, mobile device type A in country Z, etc.) and game operators (e.g. casinos, on-line gambling companies, mobile service providers, etc.). A system, herein termed a Game World Exchange (GWEx) also provides mechanisms for exchanging GWC into other forms of currency such as cash, vouchers, coupons, prizes, etc. as well as concrete goods and services via a form of barter (e.g. a dinner for two, a massage, a car, etc.). The GWEx system provides an interface by which approved users can establish a range of parameters governing the exchange of GWC, including exchange rates.

[0012] In another aspect, the GWEx system also maintains a record of all exchanges that are undertaken, and can assess charges in the form of GWC or another currency, including legal tender, in the form of a transaction fee for affecting the exchange.

[0013] In another aspect, the GWEx system can also bank GWC on behalf of a player, operator, or other entity.

[0014] In another aspect, the GWEx system uses its own unique underlying currency, as its base currency to effect the exchanges, and all other forms of GWC (i.e. game specific, operator specific, redemption specific, etc.) are managed in the context of their worth in terms of this base underlying currency, called "UGWC" and defined below.

[0015] In another aspect, the GWEx system is used to manage Game World Objects (GWOs) instead of GWC through the use of Universal Game World Objects (UGWOs) instead of UGWCs.

[0016] In another aspect, a separate system can be used to manage GWOs and UGWOs, such that the GWEx are replaced by one or more Game World Object Exchanges (GWOExs).

[0017] In another aspect, the GWEx can operate on various types of GWC and GWOs.

[0018] In another aspect, the GWEx converts GWC and/or UGWC into forms of GWO or UGWO and vice versa.

[0019] In another aspect, the GWEx manages GWOs and GWC separately.

[0020] In another aspect, a GWO can be won or lost in a side bet. Players put up a GWO they own as a stake in such a bet, in the same way that they bet GWC or other forms of RC that are associated with their player account. GWOs are won or lost by a player as a function of performance in the hybrid game, either as a bonus driven as a result of a gambling game result, or as a function of performance within the context of the entertainment game, or a combination of both or at the discretion of the operator based on a wide range of factors (i.e. time spent at a casino, player club status, etc.). For example, within a context of a hybrid football game a player might be awarded Lawrence Taylor to his team, or a draft pick in the upcoming "mock draft", as a function of the amount of GWC accumulated, having scored a certain number of touchdowns in the football game, having sacked the quarterback more than N times, etc. Likewise, a particularly poor performance could cause a game player to lose Lawrence Taylor as a player on his team.

[0021] By way of example, a GWEx or GWOEx makes it possible for a gaming machine or interactive game to trade a sword obtained by a player in an adventure game for a reusable blank Scrabble tile in another game gaming machine or interactive game. Another example would be that a gaming machine or interactive game with Lawrence Taylor on a football team trades Lawrence Taylor to another a gaming machine or interactive game to get Wayne Gretzky for use in a hockey game.

[0022] In another aspect, a hybrid gaming machine or an interactive video game is modified to exchange GWC or GWOs with another hybrid gaming machine or an interactive video game.

[0023] In another aspect, a server is modified to act as a GWEx or GWOEx to facilitate exchange of GWC or GWOs between a hybrid gaming machine or an interactive video game with another hybrid gaming machine or interactive video game.

[0024] In another aspect, a GWEx interacts with a Player Tracking System (PTS) to convert GWC or GWOs into player points for use by a player playing a gaming machine.

[0025] In another aspect, a system, namely the GWEx, is constructed to exchange GWC, based on a pre-determined exchange rate, between any combination of different gaming platforms, different locations and different networks, thereby allowing player to fluidly port their GWC from one game context to the next.

[0026] In another aspect, a GWEx is operatively connected to other GWExs to form a wide area exchange network of different layers as may be required to connect to disparate Hybrid Game classes, Hybrid Game networks, internet vs. local area network arrangements, gaming locations and gaming operations, such that GWC may be fluidly exchanged between all these domains.

[0027] In another aspect, the GWEx is operatively connected to one or a plurality of Hybrid Games, in one or more domains, for the purposes of exchanging and accounting for GWC.

[0028] In another aspect, the GWEx is constructed to convert GWC from one domain or Hybrid Game, into a unified "currency", namely a UGWC, and to convert UGWC into GWC in another domain, based on established exchange rates.

[0029] In another aspect, the GWEx is constructed to exchange, manage and account for a plurality of GWC types in one or more Hybrid Games and/or domains.

[0030] In another aspect, the GWEx supports protocols and interfaces allowing it to connect with other GWExs and Hybrid Games, across a number of network types, such that any GWEx in the hierarchy chain or in any domain may conduct transactions which exchange UGWC (or GWC) in and out of the whole of the system, without negatively impacting the integrity of the accounting of the credits and the system.

[0031] In another aspect, the GWEx is constructed to exchange, manage and account for a plurality of UGWC types in one or more Hybrid Games and/or domains.

[0032] In another aspect, the GWEx is constructed to convert GWC and/or UGWC into other forms of currency, such as legal tender, vouchers, coupons, prizes, etc.

[0033] In another aspect, the GWEx is constructed to assess an exchange transaction fee to the transaction, taking payment in the form of legal tender, GWC, or UGWC.

[0034] In another aspect, the GWEx is constructed to perform a banking function whereby a player's UGWC and/or GWC may be securely stored for later retrieval. Such feature subsumes that the GWEx would contain databases, secure password methods, accounting logs, web or network interfaces and the other fundamentals of a complete electronic vault to safely and securely store UGWC, GWC and any applicable transaction fees.

[0035] In another aspect, the GWEx is constructed to operatively connect to a traditional player tracking system in order to allow exchanges of player club points with UGWC and/or GWC, and to exchange other player activity between the systems.

[0036] In another aspect, the GWEx is constructed to operatively connect with a Hybrid Game such that the game can act as terminal where a player can review information related to their player account, and perform transactions and exchanges of UGWC and GWC.

[0037] In another aspect, the GWEx is constructed to connect with a Hybrid Game such that transactions involving the GWEx can operate in the skill or entertainment portion of the Hybrid Game in the game context.

BRIEF DESCRIPTION OF THE DRAWINGS

[0038] These and other features and aspects of the present disclosure will become better understood with regard to the following description, accompanying drawings and appendix where:

[0039] Fig. 1 is a diagram illustrating a game world exchange in accordance with the present disclosure;

[0040] Fig. 2 is an architecture diagram of a game world exchange device in accordance with the present disclosure;

[0041] Fig. 3 is an architecture diagram of a game device in accordance with the present disclosure;

[0042] Fig. 4 is a diagram illustrating a network of game exchanges in accordance with the present disclosure;

[0043] Fig. 5 is a diagram illustrating a hierarchy of networked game exchanges in accordance with the present disclosure;

[0044] Fig. 6 is a diagram illustrating the use of a player tracking system in accordance with the present disclosure;

[0045] Fig. 7 is a sequence diagram illustrating the interactions between game devices and a game exchange in accordance with the present disclosure;

[0046] Fig. 8 is a sequence diagram illustrating a sequence of interactions between game devices and an interactive game player account server in accordance with the present disclosure;

[0047] Fig. 9 is a sequence diagram illustrating a sequence of transactions between game devices, a game world exchange and a player tracking system in accordance with the present disclosure;

[0048] Fig. 10 is an architecture diagram of a game exchange in accordance with the present disclosure;

[0049] Fig. 11 is an architecture diagram of a game device in accordance with the present disclosure; and

[0050] APPENDIX A is a list of terminology as used herein.

[0051] Identically labeled elements appearing in different ones of the figures refer to the same elements but may not be referenced in the description for all figures.

DETAILED DESCRIPTION

[0052] Fig. 1 is a diagram illustrating a game world exchange in accordance with the present disclosure. A game world exchange device 100 is operatively connected to one or more game devices via a network, such as network 102. Exemplary game devices include a mobile computing device 104 (such as personal digital assistant, smartphone or the like), hybrid game 106, game console 108 and a general purpose computer 110 (such as a personal computer or the like). Each of the game devices host one or more interactive games that are played by a player to acquire GWCs and GWOs or the like. In addition, a game device hosting a hybrid game hosts a game of chance that is operatively connected to an interactive game. When a player plays the interactive game of the hybrid game, the player also plays the game of chance. Hybrid games are more fully described in PCT Application Nos. PCT/US11/26768 and PCT/US11/63587, the contents of each of which are hereby incorporated by reference as if fully stated herein.

[0053] In one aspect, the game world exchange device operates on Game World Credits (GWCs), in which case the game world exchange device is termed herein a Game World Credit Exchange (GWCE). In other aspects, the game world exchange device operates on Game World Objects (GWOs), in which case, the game world exchange device is termed herein a Game World Object Exchange (GWOE). In another aspect, the game world exchange device operates using both GWCs and GWOs. A game world exchange device is generally termed herein a Game World Exchange (GWEx).

[0054] In another aspect, the game world exchange device 100 is operatively connected to a database 101 for the storage and retrieval of GWCs and GWOs as described herein.

[0055] The game world exchange device 100 may be further operatively connected to one or more game player account servers, such as game player account server 112. The game world exchange device 100 obtains GWCs and GWOs from the game player account sever 112 that are associated with a player by the game player account server 112.

[0056] The game world exchange device 100 may be further operatively connected to a player tracking system 118. The player tracking system stores player points associated with a player for use by a player when playing a game of chance associated with the player tracking system. The game world exchange device may exchange GWCs and GWOs with the player tracking system by converting GWCs and GWOs into player points and vice versa. When the player points are stored on the player tracking system, a conventional gaming machine, such as gaming machine 116 may access the player points for use by a player playing the gaming machine.

[0057] In one aspect, the network 102 may be a Local Area Network (LAN) or may be a plurality of LANs operatively connected and operating under one or more domains. In another aspect, the network 102 may be a Wide Area Network (WAN) such as the Internet.

[0058] Fig. 2 is an architecture diagram of various logical components of a GWEx in accordance with the present disclosure. A GWEx 200 includes the logical components of a supervisory layer 202, an interface layer 204, an exchange rate table 206, an exchange rate engine 208 and one or more player accounts 210. Study of Fig. 2 in relation to the other figures and related descriptions in this disclosure will make apparent the various functions which reside within the GWEx, and their interrelation, so that the GWEx may operatively connect to other GWExs and game devices, and that enable the GWEx to accomplish exchange functions. Note that as termed herein the term "accounts" also refers collectively to "interchange accounts".

[0059] The accounts 210 reflect player GWC and GWOs of various types, but also balances (positive or negative) of merchants, vendors, casinos, operators and other parties that provide redemption means for one or more types of GWC, UGWC, GWOs and UGWOs. Access to the accounts, and management of the accounts is controlled by the supervisory layer 202, and under the supervisory layer's direction, the exchange rate engine 208.

[0060] The exchange rate table includes the conversion ratios between various types of GWC, UGWC, GWOs and/or UGWOs as well as other forms of currency (e.g. U.S. Dollars, Japanese Yen, hamburgers at restaurant X, etc.)

[0061] In one aspect, the various GWCs are stored in their native format, in which case an exemplary exchange table for a particular GWC of would take a form as follows in Table 1:

	Game A	Game B	Game C	...
Game A	1	RateAB	RateAC	
Game B	RateBA	1	RateBC	
Game C	RateCA	RateCB	1	
...				...

[0062] For example, each conversion factor for converting a type of GWC used by an interactive game is stored in a manner such that, in order to obtain a conversion factor for converting GWC from Game A into GWC for Game B, the GWEx looks to find a row for Game A and then looks across the row for Game A to find the column for Game B and reads the rate for converting from GWC in Game A to GWC in Game B, namely RateAB.

[0063] In another aspect, the GWCs are converted to UGWCs, in which case an exchange table would take the form of exemplary Table 2:

	Rate	Rate
Game A	RateAU	RateUA
Game B	RateBU	RateUB
Game C	RateCU	RateUC
...	...	...

[0064] To use such a table, for example, the GWEx looks up a row for a game, such as Game A, and reads across the row to find a rate for converting GWC of Game A into UGWC, namely Rate AU. Alternatively, to convert from UGWC to GWC of Game A, the GWEx looks along the row for Game A to the rate for exchanging UGWC into GWC of Game A, namely Rate UA.

[0065] In another aspect, similar tables are used to convert GWOs of one game into GWOs of another game, as exemplified by Table 3:

GameA:Object	
Game B	Object
Game C	Object
...	...

[0066] For example, to convert an object in Game A to an object in Game B, the GWEx looks in the table for a row for Game B and reads the object stored in that row, thus returning the correct converted object for Game B.

[0067] In another aspect, in order to use UGWOs, a similar table, such as exemplary Table 4 below, associating universal objects with objects in a particular game, is used:

	Universal:Object1	Universal:Object2	...
Game A	ObjectA1	ObjectA2	...
Game B	ObjectB1	ObjectB2	...
Game C	ObjectC1	ObjectC2	...
...	...	...	...

[0068] For example, to convert an object, Object A2, in Game A to a UGWO, the GWEx looks in the table for a row for Game A and then reads along that row until the GWEx finds the column containing Object A2. The GWEx then looks in that column for the Universal:Object2 that corresponds to Object A2.

[0069] The exchange rate engine 208 ensures accounts remain in balance, includes checks and balances on exchanges (i.e. rate limitations, limits on amounts exchanged). The exchange rate engine also communicates with supervisory layer 202 as to the state of exchanges.

[0070] The interface layer 204 manages communication between GWExs and also between a GWEx and a specific game device. The interface layer also communicates with players through various hybrid game GWEs, game devices, web interfaces, or other means, to allow for account management, the implementation of exchanges, etc. The interface layer also facilitates communication with player tracking systems, such as player tracking system 118 of Fig, 1.

[0071] The supervisory layer 202 controls access to the accounts 210, the exchange rate engine 208 and the exchange rate tables 206. Through the supervisory layer, a party with the appropriate level of authority can monitor and affect the operation of these subsystems. The supervisory layer also includes the mechanism for applying charges to the various accounts as a function of activity, balance or other user defined metrics.

[0072] Accordingly, within the GWEx 200, for a given player, each form of GWC or GWO the player accumulates as a function of game play can be stored in the native GWC or GWO form (i.e. GWC1, GWC2, GWO1, GWO2 etc.) or translated into a Universal Game World Credit (UGWC) or Universal Game World Objects (UGWOs). The GWEx keeps track of the player's currency positions in an account and confers this information to relevant player tracking systems through the interface layer. The GWEx, as a matter of policy set by the operator, can force conversion of a player's varied GWC or GWOs into UGWC or UGWOs at a specific time

or interval, or can store each type of GWC or GWO as an independent record indefinitely. This is one of many operator specific choices controlled through the supervisory layer 202.

[0073] In addition to providing mechanisms to convert one type of GWC into another (namely the exchange rate engine), and to store records of the level of player GWC, the GWEx provides a forum for converting GWC and/or UGWC into other forms of currency (including real world money such as U.S. Dollars) and/or things of value (i.e. redemption); also as part of the Exchange Rate Engine. For example, a player might be able to convert 50,000 UGWC into a free trip to Las Vegas, or 25,000 UGWC into a home entertainment system, or 75,000 GWCMadden Football into entry into a Madden FootballTM tournament in Atlantic City on a specific date in the future, said tournament offering cash prizes or other material incentives.

[0074] The GWEx can store additional, player-specific information in an Account along with the player's GWC records relating to the player's standing in one or more game types, or it can store solely GWC records and link these to other player information as stored in a player tracking system. There are also accounts within the GWEx to store information about GWEx balances for other participants in the system that are not players, such as operators and/or businesses who might be offering items or services for redemption.

[0075] The GWEx is capable of interacting with the a specific game's GWE, not only to receive the value of GWC earned by the player during game play on that machine, but to provide information to the player through the game-specific GWE, such that the GWE acts as a local terminal for the player, by which s/he can check GWC and UGWC balances, redeem GWC or UGWC for goods or services, exchange one type of GWC for another or convert it into UGWC or vice versa. This functionality is enabled by the Interface Layer of the local GWE and the Interface Layer of the GWEx in question.

[0076] The GWEx, and when more than one level of GWEx is in existence, the network of GWExs, act like a banking system. A local GWE can be, in effect, a full service bank terminal in the context of GWCs of various types, as well as a store front where GWC can be redeemed for worldly goods and services, as well as, in one embodiment, cash. The local GWE (and/or the relevant GWEx) can control a printer or other output device to confer redeemed goods or services upon the player in the form of a coupon, or a download (e.g. a piece of software, a coupon, a redemption code, etc.) to a local wireless device (e.g. a smartphone or iPad). The GWEx can also communicate this information to wireless or other devices (e.g.

printer), software or email accounts independent of the local GWE, in keeping with pre-established player preferences or player preferences as selected at the time of redemption.

[0077] The GWEx may be managed by a casino operator, or a 3rd party. In the case where the GWEx at a higher level (e.g. level n) spans multiple operators it is likely to be managed by a consortium of those operators or by a 3rd party.

[0078] Connection of a GWEx to the Hybrid Game, either directly or indirectly, allows the possibility for the GWEx to function with the game world context of the Hybrid Game. For example, say a player has 1000 UGWC in the system. The player is also playing a Hybrid Game which is a wandering traveler adventure game. In the adventure game, there is a merchant shop in a village, and the player wishes to buy some provisions, so the player enters the shop. Once in the shop, the player checks his "purse". The purse in the game is a graphic representation of the player's account on the GWEx. The GWEx, through its interface to the Hybrid Game, provides information as to what is in the player's account. Let's say in this example, each Hybrid Game GWC is worth 2 UGWC on the system. A check of the purse by the player in the game shows that there are 500 gold coins in the purse (2:1 exchange rate), which is the game's method for demonstrating the GWC that the player has at their disposal to spend. The player takes 5 gold coins out for payment and gives them to the shop keep. The act of paying the merchant in the game triggers the GWEx to debit the player's accounts 10 UGWC (the 2:1 exchange rate). Let's say there is a transaction fee of 1 UGWC for this transaction. In the game, this could be represented as "tax for the king", effectively a sales tax. The act of paying the 5 coins would result in a total cost of 5 gold coins and a silver coin (1/2 the value of a gold coin in the game), so the game would show 6 gold coins removed, and a silver coin given back in change. This would be the same as the actual debit of 11 UGWC from the player account. Continuing the example, when the player decides to finish with the game, they could go to a bank in the village and deposit their money for safe keeping. The player would turn over the purse with say 655 gold coins in it (they had a good day), and play it on deposit with this virtual bank. There the money would remain until either the player returned to the same game, or wished to access their bank account in the one world from a portal in another world. Since the player's account actually resides in the GWEx system, whereas it would appear to the player that they were going to convert from gold coins in the one game world to rubies in the other, they would actually be accessing their account within the GWEx and making a withdrawal of UGWC.

[0079] Each type of skill-enabled gambling game has its own form of GWC. For example, the GWC for a game featuring a version of EA's Madden FootballTM has a different GWC than a game featuring a version of HaloTM. It is also possible for GWC to vary by game type and/or casino and/or operator, as opposed to being equivalent for a given game type across multiple game floors and/or operators. Consider also the case where a casino operator may elect to run specials where a more liberal awarding of GWC on a type of game to promote its adoption and popularity. The operator may wish to allow the portability of GWC on this gaming special to other games not involved in the promotion where GWC is more difficult to earn. The GWEx provides a mechanism to glue to together these disparate GWC classes into a cohesive approach. Given the disparity of the various GWC type and classes, a common currency is required. For this invention, it is the UGWC. The GWEx is used by the operator to establish a conversion factor between each type of GWC and UGWC. At Level 0, UGWC0 is the common currency used to affect this translation. For example, each unit of GWC in a game featuring Madden Football might be worth 1 UGWC0 at a particular casino, while each unit of GWC in a game featuring Halo (GWCHalo) might be worth two UGWC0. The effective exchange rate between GWCMadden Football and GWCHalo would be 2:1 therefore. Operators can set the exchange rates explicitly by populating a table within the GWEx that expresses each type of GWC in terms of UGWC, or in another implementation, the UGWC can support a market-based approach, whereby the value of each type of GWC relative to other types of GWC is set through a trading process, by which holders of various types of GWC (e.g. players, operators, merchants, etc.) trade GWC in a market with trading rules set by through the GWEx (trade limits, caps on exchange rates, etc.). Note that in this embodiment, it is possible that exchange rates may not balance across three or more types of GWC. The invention supports the case where all exchanges must be made in terms of UGWC to ensure balance, as well as allowing direct exchanges between various types of GWC where such balance is not assured.

[0080] GWC can also be accumulated by parties independent of playing a gambling game. For example, playing a skill-based game at home on an X-box will generate a specific game score that is by definition a form of GWC (Figure 1). This specific form of GWC (e.g. GWCPlantsVsZombiesXboxHome) can also be accumulated and ultimately exchanged for other forms of GWC or UGWC. GWC can also be accumulated independent of playing any type of gambling or video game whatsoever. The owner of a GWEx environment, acting in effect like a

central banker, can sell GWC of any type to 3rd parties for distribution or subsequent resale. The resulting GWC can then be redeemed or traded at a later time through the GWEx.

[0081] Fig. 3 is an architecture diagram of a game device in accordance with the present disclosure. A game device 300 hosts an interactive game 302. The interactive game includes an interface layer 304 to operatively connects a game device to a GWEx 308. Alternatively, if the game device is hosting a hybrid game, a Game World Engine (GWE) 306 may include the interface layer 304. In one aspect, the GWEx and the game device exchange GWC or GWOs that are appropriate for the interactive game 302 but the GWEx converts (310) the GWC into UGWC for internal processing. In addition, the GWEx may also convert the GWOs into UGWOs as needed for internal processing. The game device interfaces with a GWEx via the interface layer thus enabling the game device to connect to one or more GWExs. The connection itself can take place directly or via any suitable network topology, including the Internet.

[0082] Fig. 4 is a diagram illustrating a network of game exchanges in accordance with the present disclosure. Fig. 5 is a diagram illustrating a hierarchy of networked game exchanges in accordance with the present disclosure. Fig. 6 is a diagram illustrating the use of a player tracking system in accordance with the present disclosure.

[0083] Speaking now of Figs, 4, 5 and 6 collectively, processor-executable instructions implementing a GWEx runs on one or game exchange devices, such as servers 400, 402, 404, 406, 500, 502, 504, 506, 508, 510, 512, 600, 602, 604, 606, 608, 610, 612, 614, 616, 618, 620, 622, that are connected to one or more game devices. The connection to these game devices can be through the Internet, a wide area network (WAN), local area network (LAN), direct connection via wireline or wireless or any other means by which computers are connected. A GWEx can exist at a local level, and also at increasingly higher levels of abstraction. For example, a GWEx could service all of the appropriate game devices at a single casino location (e.g. "Level 0"). Each of these GWEx's could then interface to another GWEx that operates as an umbrella over all casino locations within a single property group ("Level 1") or that spans several distinct playing areas within a single property. At an even higher level, a GWEx could bridge across multiple property groups ("Level 2") and so on through "Level N". Each instance of the GWEx could reside within a separate computer server, multiple computer servers, or all or some of the GWExs could exist within a single server or in the cloud. The entire logic of the GWEx can also be embodied within a broader player tracking system up to and including the

span addressed by the player tracking system itself (e.g. a specific property group), beyond which an interface to the next higher level of GWEx would be required (e.g. across property groups).

[0084] Referring now to Fig. 4, there are two levels of GWExs. At the base level 0, two GWExs each connect to their own type of unique hybrid gambling game, namely hybrid games 410 and 412, respectively operatively connected to server 402 and 404, each such hybrid game containing a GWE, of which one of its functions is to couple to the GWEx. In Fig.4, it can also be seen that a GWEx can interface with a heterogeneous mix of game types, machine types and/or game-location-type combinations. Note from the figure that there are various distinct types of devices depicted: a hybrid slot machine supporting GWC (such as the hybrid games of banks 410 and 412), a home PC 420 used for playing a cloud based computer game, a mobile computing device 422, and a Microsoft X-boxTM console 424 used in a home.

[0085] Fig. 4 also illustrates that each of the game groups has its own type of GWC, scaled as appropriate to its context. Note also, that some of the games have more than one type of GWC, such that the GWExs must be able to convert multiple types of GWC into a universal currency, UGWC.

[0086] It should be noted in Fig. 4, that the mobile computing device 422, PC 420 and the X-boxTM 424 home console may not contain a complete GWE as defined in this disclosure, but would still contain a mechanism used to communicate information about the player's GWC levels and game performance to the GWEx to which the game devices are connected.

[0087] Fig. 4 also illustrates an architecture whereby games of different types, different classes and in different locations have a method for interconnection to allow their disparate GWC and GWOs to be converted into UGWC and UGWO, respectively. In Fig. 4 for example, GWC from one type of game, via its connection to the GWEx network and levels stack, would be converted to UGWC, and back into GWC applicable to a different type of game. The method, therefore, allows for portability of GWC between these various game, classes and locations.

[0088] In Fig. 5, the architecture of Fig. 4 has been expanded to show an additional GWEx level, namely level 2. In this example implementation, the GWExs have the following purposes:

[0089] Level 0 GWExs: one set, 504 and 506, is connected to two different games groupings, 520 and 522 respetively, in two different casinos for instance. Another, 510, is

connected to a regional market of PCs 524 for game execution, and a fourth, 512, is connected to say a region set of home consoles 526.

[0090] Level 1 GWExs: one, 502, is used to connect together a group of casinos all belonging to a group casino operator, and another one, 508, is used to join a set of region home console and PC players together.

[0091] Level 2 GWEx, 500,530 is managed by an entity who offers a subscription service allowing casino operators and home console users the ability to perform interchange with 3rd parties, 530, who would like to offer goods and/or services and/or money for redemption by the use of UGWC based on the subscription terms which in turn results in redemption of GWC into one of the GWEx domains.

[0092] Fig. 6 shows an example of a system connected in the casino context whereby GWC can be freely interchanged between different games, casinos and even property groups. Fig. 6 also shows how a traditional player tracking system 630 of one particular property can interface to the GWEx construct so that a player's club points could be interchanged (632, 634 and 636) in some manner with UGWC and inevitably be available on a connected game as GWC in that game space.

[0093] Fig. 7 is a sequence diagram illustrating the interactions between game devices and a game exchange in accordance with the present disclosure. A game device A 704 transmits a player ID 706 to a GWEx 700 indicating a player playing an interactive game hosted by the game device A. The GWEx receives the player ID and either creates or finds an account of GWC associated with the player ID. The game device A transmits to the GWEx a game ID and an amount of GWC 708 to be converted into GWC for another game. The GWC are GWCs acquired by the player while playing the interactive game hosted by game device A. The GWEx receives the GWC transmitted by the game device A and converts (710) the GWC into UGWC that the GWEx then stores (712) the UGWC.

[0094] Subsequently, the player, using another game device B 702, transmits the player's ID 714 to the GWEx. The GWEx receives the player ID and determines an account of GWC associated with the player ID. The game device B transmits a request for GWC 716 for another interactive game hosted by the game device B. The request includes an identifier for the another interactive game and optionally and identifier of the type of GWC that the game device is requesting. When the GWEx receives the request for the GWC from the game device B, the

GWEx retrieves (718) UGWC stored in the GWEx and associated with the player in a player account. The GWEx then converts (720) the UGWC into GWC and transmits the GWC 722 to the game device B. The game device B then uses the GWC when executing (724) the another interactive game hosted by the game device B.

[0095] In one aspect, the game device A and the game device B may be the same game device. That is, a player using the same game device may wish to play a first interactive game on the game device, store acquired GWC on the GWEx and then player another interactive game on the same game device using GWC retrieved from the GWEx.

[0096] In another aspect, an interactive game hosted by either game device A or game device B is a component of a hybrid game having an interactive game and a game of chance as described herein.

[0097] In addition, it should be understood that either game device A or game device B can be any of the game devices described herein, such as a gaming machine, a mobile device, a general purpose computer, a game console, etc.

[0098] In another aspect, instead of, or in addition to, exchanging GWC, the game device A, game device B, and the GWEx exchange GWOs.

[0099] In another aspect, the GWEx may not use UGWCs or UGWOs. Instead, the GWEx may store GWC and GWOs in their native format and then convert the GWC and GWOs when retrieved as previously described herein.

[00100] Fig. 8 is a sequence diagram illustrating a sequence of interactions between game devices and an interactive game player account server in accordance with the present disclosure. A game device A 804 transmits a player ID 808 to a GWEx 800 indicating a player playing an interactive game hosted by the game device A. The game device A also transmits a game ID and an amount of GWC 810 to be converted into GWC for another game to the GWEx. The GWEx receives the player ID, the game ID and the GWC request and accesses 812 an interactive game player account server 806 storing GWC for the player playing the interactive game of game device A. The interactive game player account server retrieves (814) the GWC 816 and transmits the GWC to the GWEx. The GWEx receives the transmitted GWC 816 from the interactive game player account server and converts (818) the GWC into UGWC that the GWEx then stores (820).

[00101] Subsequently, the player, using another game device B 802, transmits the player's ID 822 to the GWEx. The GWEx receives the player ID and determines an account of GWC associated with the player ID. The game device B transmits a request for GWC 824 for another interactive game hosted by the game device B. The request includes an identifier for the another interactive game and optionally an identifier of the type of GWC that the game device is requesting. When the GWEx receives the request for the GWC from the game device B, the GWEx retrieves (826) UGWC stored in the GWEx and associated with the player in a player account. The GWEx then converts (828) the UGWC into GWC and transmits the GWC 830 to the game device B. The game device B receives the GWC 830 and then uses the GWC when executing (840) the another interactive game hosted by the game device B.

[00102] In one aspect, the game device A and the game device B may be the same game device. That is, a player using the same game device may wish to play a first interactive game on the game device, store acquired GWC on the GWEx and then player another interactive game on the same game device using GWC retrieved from the GWEx.

[00103] In another aspect, an interactive game hosted by either game device A or game device B is a component of a hybrid game having an interactive game and a game of chance as described herein.

[00104] In addition, it should be understood that either game device A or game device B can be any of the game devices described herein, such as a gaming machine, a mobile device, a general purpose computer, a game console, etc.

[00105] In another aspect, instead of, or in addition to, exchanging GWC, the game device A, game device B, and the GWEx exchange GWOs.

[00106] In another aspect, the GWEx may not use UGWCs or UGWOs. Instead, the GWEx may store GWC and GWOs in their native format and then convert the GWC and GWOs when retrieved as previously described herein.

[00107] Fig. 9 is a sequence diagram illustrating a sequence of transactions between game devices, a game world exchange and a player tracking system in accordance with the present disclosure. A game device A 904 transmits a player ID 908 to a GWEx 900 indicating a player playing an interactive game hosted by the game device A. The game device A also transmits a game ID and an amount of GWC 910 to be converted into GWC for another game to the GWEx. The GWCs are GWCs acquired by the player while playing the interactive game hosted by game

device A. The GWEx receives the GWC transmitted by the game device A and converts (912) the GWC into UGWC that the GWEx then stores (914).

[00108] Subsequently, the player, using another game device B 802 that is a gaming device, transmits the player's ID 916 to a player tracking system 906. The player tracking system 906 receives the player ID and forwards the player ID to GWEx 900. GWEx 900 receives the player ID and determines an account of GWC associated with the player ID. The player tracking system transmits a request for player points for the gambling game hosted by the gaming device B. When the GWEx receives the request for the player points from the game player tracking system, the GWEx retrieves (922) UGWC stored in the GWEx and associated with the player in a player account. The GWEx then converts (924) the UGWC into player points and transmits the player points 926 to the player tracking system. The player tracking system receives the player points 926 and transmits them as player points 928 to the game device B. The game device B then uses the player points when executing (930) the gambling game hosted by the game device B.

[00109] In another aspect, an interactive game hosted by device A or the gambling game hosted by device B may be components of hybrid games having interactive games and games of chance as described herein.

[00110] In addition, it should be understood that either game device A or game device B can be any of the game devices described herein, such as a gaming machine, a mobile device, a general purpose computer, a game console, etc.

[00111] In another aspect, instead of, or in addition to, exchanging GWCs for player credits or points, the game device A, game device B, and the GWEx exchange GWOs for player credits or points.

[00112] In another aspect, the GWEx may not use UGWCs or UGWOs. Instead, the GWEx may store GWC and GWOs in their native format and then convert the GWC and GWOs when retrieved as previously described herein.

[00113] Fig. 10 is an architecture diagram of a game exchange device in accordance with the present disclosure. The game exchange device 1000 may be a general purpose computer, a computing device, a controller, or the like, that is used to host a game exchange as described herein. In the game exchange device, a processor is coupled to a memory by a bus. The processor is also coupled to non-transitory processor-readable storage media, such as a storage

device that stores processor-executable instructions and data. The processor is also coupled to one or more interfaces that may be used to connect the processor to other processing apparatuses as well as networks as previously described herein. The processor is also coupled via the bus to user input devices, such as tactile devices like keyboards, keypads, foot pads, touch screens, trackballs, etc., as well as non-contact devices such as audio input devices, motion sensors and motion capture devices, etc. that the processing apparatus may use to receive inputs from a user when the user interacts with the processing apparatus. The processor is also coupled via the bus to user output devices such as visual output devices like display screens, light panels, lighted displays, etc., audio output devices like speakers, sound amplifiers, etc. and tactile output devices like vibrators, manipulators, etc. that the processing apparatus uses to generate outputs perceivable by the user when the user interacts with the processing apparatus.

[00114] In operation, the processor loads the instructions and the data from the storage device into the memory and executes the instructions and operates on the data to implement the various aspects and features of a game exchange as described herein. The processor uses the user input devices and the user output devices in accordance with the instructions and the data in order to create and operate user interfaces for the game exchange for players, casino operators, owners, etc. as described herein.

[00115] It should be understood that although the processing apparatus is described herein as being constructed from a processor and instructions stored and executed by hardware components, the processing apparatus can be composed of only hardware components. In addition, although the storage device is described as being coupled to the processor through a bus, those skilled in the art of processing apparatuses will understand that the storage device could include removable media such as a USB memory device, an optical CD ROM, magnetic media such as tape or disks, etc. Also, the storage device could be accessed through one of the interfaces or over a network. Furthermore, any of the user input devices or user output devices could be coupled to the processor via one of the interfaces or over a network. In addition, although a single processor is described, those skilled in the art will understand that the processor could be a controller or other computing device or a separate computer as well as be composed of multiple processors or computing devices.

[00116] Fig. 11 is an architecture diagram of a game device in accordance with the present disclosure. The game device 1100 may be a mobile device, a game console, a general purpose

computer or the like as described herein. The game exchange device may be a general purpose computer, a computing device, a controller, or the like, that is used to host a game exchange as described herein. In the game exchange device, a processor is coupled to a memory by a bus. The processor is also coupled to non-transitory processor-readable storage media, such as a storage device that stores processor-executable instructions and data. The processor is also coupled to one or more interfaces that may be used to connect the processor to other processing apparatuses as well as networks as previously described herein. The processor is also coupled via the bus to user input devices, such as tactile devices like keyboards, keypads, foot pads, touch screens, trackballs, etc., as well as non-contact devices such as audio input devices, motion sensors and motion capture devices, etc. that the processing apparatus may use to receive inputs from a user when the user interacts with the processing apparatus. The processor is also coupled via the bus to user output devices such as visual output devices like display screens, light panels, lighted displays, etc., audio output devices like speakers, sound amplifiers, etc. and tactile output devices like vibrators, manipulators, etc. that the processing apparatus uses to generate outputs perceivable by the user when the user interacts with the processing apparatus.

[00117] In operation, the processor loads the instructions and the data from the storage device into the memory and executes the instructions and operates on the data to implement the various aspects and features of a game exchange as described herein. The processor uses the user input devices and the user output devices in accordance with the instructions and the data in order to create and operate user interfaces for the game exchange for players, casino operators, owners, etc. as described herein.

[00118] It should be understood that although the processing apparatus is described herein as being constructed from a processor and instructions stored and executed by hardware components, the processing apparatus can be composed of only hardware components. In addition, although the storage device is described as being coupled to the processor through a bus, those skilled in the art of processing apparatuses will understand that the storage device could include removable media such as a USB memory device, an optical CD ROM, magnetic media such as tape or disks, etc. Also, the storage device could be accessed through one of the interfaces or over a network. Furthermore, any of the user input devices or user output devices could be coupled to the processor via one of the interfaces or over a network. In addition, although a single processor is described, those skilled in the art will understand that the processor

could be a controller or other computing device or a separate computer as well as be composed of multiple processors or computing devices.

[00119] It should also be understood that a GWEx or gaming device as described herein can be implemented on multiple processing apparatuses, whether dedicated, shared or distributed in any combination thereof, or may be implemented on a single processing apparatus.

[00120] To the extent that the GWEx or gaming device utilizes networks, connections and interfaces as herein described, it would be apparent to those skilled in the art that such networks, connections and interfaces could be any combination of the internet, a LAN, optical or wireless networks or any other method for connecting computer devices, and any applicable protocols and data interchange methods routinely practiced for such purposes.

[00121] Although certain specific embodiments have been described herein, many additional modifications and variations would be apparent to those skilled in the art. It is therefore to be understood that the aspects and features disclosed herein may be practiced otherwise than as specifically described. Thus, the exemplary embodiments should be considered in all respects as illustrative and not restrictive, the scope of the claims to be determined as supported by the present application and the claims' equivalents rather than the foregoing description.

APPENDIX A – LIST OF TERMS

For the purposes of this disclosure, the following terminology applies:

[00122] "Casino" A gaming establishment in either one or a plurality of locations where people go to play gambling games of chance. Casino, for the purposes of this document, may also refer to a virtual manifestation of a casino, such as an on-line casino or gambling operation.

[00123] "Casino Operator", or "Operator" A person or entity which operates one or more gambling operations, including but not limited to a Wide Area Network gaming franchise, a gaming route, or other gambling business be it a physical manifestation in the case of a casino or virtual in the case of an internet gambling operation.

[00124] "Game World Object" (GWO) An element of the entertainment game that can be associated with a player's character within that game and/or the player profile associated with the person playing a Hybrid Game. Examples are as follows: a type of weapon in a first-person shooter game; an accessory for a car in a racing game; a personal attribute (e.g. marksmanship) in an adventure game; a supply or "physical object" within a game-world (e.g. a potion, food, bandages, ammunition, a form of in-game currency, a horse). Other examples include EE, AE, and CEE.

[00125] "Universal Game World Objects" (UGWO) A universal form of GWO into which game specific GWO can be converted. Each GWEx (or GWOE as may be the case) supports a localized UGWC. In the case where the exchange of GWOs is accomplished via one or more GWExs, and GWOs and GWC are accepted as fungible, the localized UGWC may be utilized in lieu of a separate localized UGWO. In cases where the exchange of GWOs is accomplished via one or more GWExs, but GWOs and GWC are not considered fungible, UGWO is utilized as relates the management of accounts of and the exchange of GWOs.

[00126] "Slot" or "Slot Machine" An electro-mechanical game wherein a random number generator determines the chance of outcome of a game, and coupled with the betting decisions of a player, a gambling outcome results. Slot machines are usually found in casinos or other more informal gaming establishments.

[00127] "GWC" Game World Credits. Game World Credits are player points earned or depleted as a function of player skill, i.e. as a function of player performance in the context of the game. GWC is analogous to the "score" in a typical video game. Each game capable of connecting to the system which is the subject of this invention, has its own scoring criterion, embedded within its algorithms and memory that reflects player performance against the goal(s) of the game. Note that as entertainment video games all having different scoring levels and absolute score ranges, GWC will often be game specific (e.g. game world credits earned in a soccer

game may be very different than credits earned in a shooter game). GWC can be carried forward from one level of game play to another, and ultimately paid out in various manners such as directly in cash, or indirectly such as earning entrance into a sweepstakes drawing, or earning participation in, or victory in, a tournament with prizes. GWC may be stored on a player tracking card or in a network-based player tracking system and the GWC is attributed to a specific player.

[00128] "UGWC" Universal Game World Credits. A universal form of GWC into which game specific GWC can be converted. Each GWEx supports a localized UGWC.

[00129] "GWE" Game World Engine. The portion of the hybrid game, to which the GWEx connects, which includes the algorithms, ways and means to (a) manage the GWC activities of the hybrid game, (b) to effect entertainment game impacts from interrelationships of GWC and game performance, (c) to contain various meters and activity logs necessary for proper accounting, and (d) to connect with the GWEx. The GWE can also contain other functionality in addition to that described herein.

[00130] "GWEx" Game World Credits Exchange. The system which is the invention and primary subject of this document that provides a mechanism for storing, exchanging, redeeming and managing GWC from one or multitude of games, located in one or many distinct locations, including the world wide web. GWExs can be one or many depending upon the implementation and can also interact with each other so as to create a network of GWExs that spans a variety of different dimensions (i.e. geography, property groups, game types, non-game devices, etc.). A GWEx can interface with a heterogeneous mix of game types, machine types and/or game-location-type combinations (e.g. an aforementioned hybrid slot machine game located in a casino, an X-box used in a home, a video game in an arcade, etc.). A GWEx can also interface with non-game computers and/or terminals through which entities (e.g. individuals, non-gaming enterprises, casinos) generate or redeem various types of GWC or manage their own accounts and/or the activities of the GWEx (e.g. setting up redemption programs). A GWEx can also interface with slot

machine embedded printers and other output devices to provide a redemption mechanism or status information as in regards to GWC or goods/services/currency.

[00131] "Interchange Account" or "IA" A storage mechanism within the GWEx that keeps track of a party's holdings of various types of GWC and/or UGWC and/or items/services/currency available for redemption. Each GWEx can store its IA locally, or they can be stored centrally or in any manner that is computationally and economically efficient where in such cases each GWEx includes the means to access the necessary IA contents. Note that mechanisms exist within the GWEx software to ensure the data in an IA is not corrupted or replicated so that the contents are deterministic. The IA can also maintain a history of all transactions related to a given party, and can be decremented or incremented by the Supervisory Layer to reflect various charges or benefits that accrue to the entity holding the account in question.

[00132] "Exchange Rate Engine" A part of the GWEx software that translates one type of GWC into another and/or into UGWC and/or items/services/currency. The Exchange Rate Engine can be deterministically governed by the Supervisory Layer or it can be a market-based system, whereby trading guidelines are established through the Supervisory Layer (e.g. minimum or maximum trade sizes, cost for a trade, excluded trade types or windows where trading is excluded, etc), or it can be a combination of these two approaches.

[00133] "Exchange Rate Table" Stores the conversion ratios between various types of GWC and/or UGWC as well as other forms of currency (e.g. US Dollars, Japanese Yen, hamburgers at restaurant X, spa treatments, club passes, etc.)

[00134] "Supervisory Layer" Controls access to Interchange Accounts, the exchange rate engine and the exchange rate table. Through the supervisory layer, a party with the appropriate level of authority can monitor and affect the operation of these subsystems. The Supervisory Layer also includes the mechanism for applying charges to the various IAs as a function of activity, balance or other user defined metrics. In cases where IAs, Exchange Rate Tables and/or Exchange Rate Engines

are to be synchronized across multiple GWExs, or where a higher level GWEx's values as regards these elements are to dictate the state at a lower level GWEx, this process is affected by the Supervisory Layer, which in this way provides a mechanism by which the activities of multiple GWExs can be coordinated. Access to the Supervisory Layer is generally restricted to the owner of the GWEx, but certain functions can be exposed to users. For example, functionality to set up a redemption program could be accessed by merchant partners of the entity that owns the GWEx so that the merchants can offer goods or services for redemption.

WHAT IS CLAIMED IS:

1. A method of exchanging game credits for a plurality of interactive games, comprising:

receiving, by a game exchange device one or more first game world credits transmitted by a first game device, the one or more first game world credits acquired by a player while playing a first interactive game;

receiving by the game exchange device from a second game device a request for second game world credits for a second interactive game; and

transmitting, by the game exchange device to the second game device, in response to the request for the second game world credits, the first game world credits as converted into second game world credits by the game exchange device.

2. The method of Claim 1, further comprising:

receiving by the game exchange device a player identifier identifying a player of the first interactive game; and

storing, by the game exchange device, the first game world credits in an account determined by the player identifier.

3. The method of Claim 1, further comprising:

converting, by the game exchange device, the first game world credits into universal game world credits; and

converting, by the game exchange device, the universal game world credits into the second game world credits.

4. The method of Claim 3, further comprising:

receiving by the game exchange device a player identifier identifying a player of the first interactive game; and

storing, by the game exchange device, the universal game world credits in an account determined by the player identifier.

5. The method of Claim 1, wherein the first game device and the second game device are the same game device.

6. The method of Claim 1, wherein the first interactive game is a component of a hybrid game having an interactive game and a game of chance.

7. The method of Claim 1, wherein the second interactive game is a component of a hybrid game having an interactive game and a game of chance.

8. The method of Claim 1, wherein the first game device is selected from the group comprising: a gaming machine; a mobile device; a general purpose computer; and a game console.

9. The method of Claim 1, wherein the second game device is selected from the group comprising: a gaming machine; a mobile device; a general purpose computer; and a game console.

10. A method of exchanging game objects for a plurality of interactive games, comprising:

receiving, by a game exchange device one or more first game world objects transmitted by a first game device, the one or more first game world objects acquired by a player while playing a first interactive game;

receiving by the game exchange device from a second game device a request for second game world objects for a second interactive game; and

transmitting, by the game exchange device to the second game device, in response to the request for the second game world objects, the first game world objects as converted into second game world objects by the game exchange device.

11. A game exchange device for exchanging game world credits for a plurality of interactive games, the game exchange device comprising:

a processor and a memory having processor-executable instructions stored thereon, the processor-executable instructions comprising:

receiving, by the game exchange device one or more first game world credits transmitted by a first game device, the one or more first game world credits acquired by a player while playing a first interactive game;

receiving by the game exchange device from a second game device a request for second game world credits for a second interactive game; and

transmitting, by the game exchange device to the second game device, in response to the request for the second game world credits, the first game world credits as converted into second game world credits by the game exchange device.

12. The game exchange device of Claim 11, the instructions further comprising:

receiving by the game exchange device a player identifier identifying a player of the first interactive game; and

storing, by the game exchange device, the first game world credits in an account determined by the player identifier.

13. The game exchange device of Claim 11, the instructions further comprising:

converting, by the game exchange device, the first game world credits into universal game world credits; and

converting, by the game exchange device, the universal game world credits into the second game world credits.

14. The game exchange device of Claim 13, the instructions further comprising:

receiving by the game exchange device a player identifier identifying a player of the first interactive game; and

storing, by the game exchange device, the universal game world credits in an account determined by the player identifier.

15. The game exchange device of Claim 11, wherein the first game device and the second game device are the same game device.

16. The game exchange device of Claim 11, wherein the first interactive game is a component of a hybrid game having an interactive game and a game of chance.

17. The game exchange device of Claim 11, wherein the second interactive game is a component of a hybrid game having an interactive game and a game of chance.

18. The game exchange device of Claim 11, wherein the first game device is selected from the group comprising: a gaming machine, a mobile device, a general purpose computer, and a game console.

19. The game exchange device of Claim 11, wherein the second game device is selected from the group comprising: a gaming machine, a mobile device, a general purpose computer, and a game console.

20. A game exchange device for exchanging game world objects for a plurality of interactive games, the game exchange device comprising:

a processor and a memory having processor-executable instructions stored thereon, the processor-executable instructions comprising:

receiving, by the game exchange device one or more first game world objects transmitted by a first game device, the one or more first game world objects acquired by a player while playing a first interactive game;

receiving by the game exchange device from a second game device a request for second game world objects for a second interactive game; and

transmitting, by the game exchange device to the second game device, in response to the request for the second game world objects, the first game world objects as converted into second game world objects by the game exchange device.

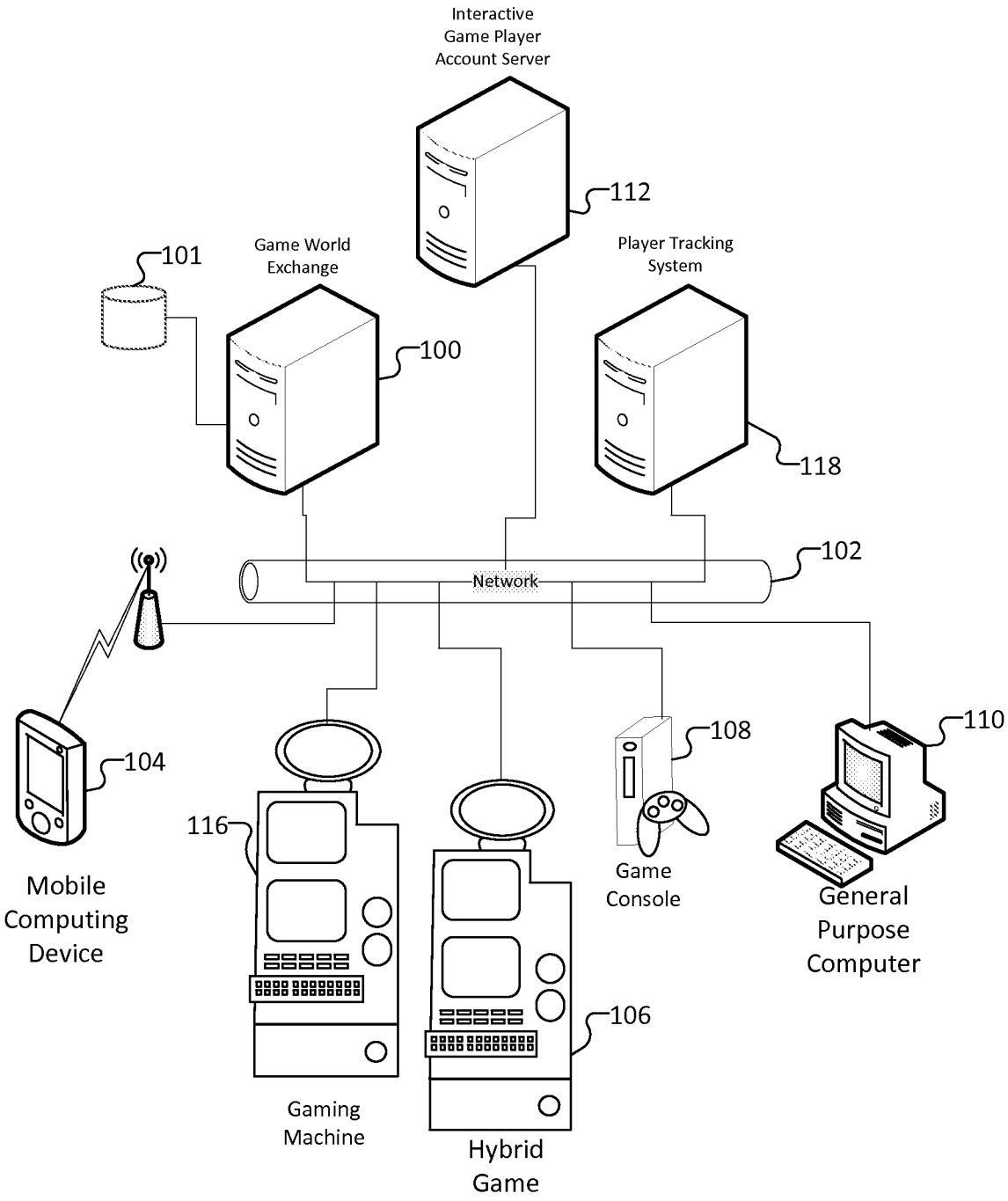

Interactive
Game Player
Account Server
112
101
Game World
Exchange
100
Player Tracking
System
118
102
Network
104
Mobile
Computing
Device
116
Gaming
Machine
106
Hybrid
Game
108
Game
Console
110
General
Purpose
Computer

Fig. 1

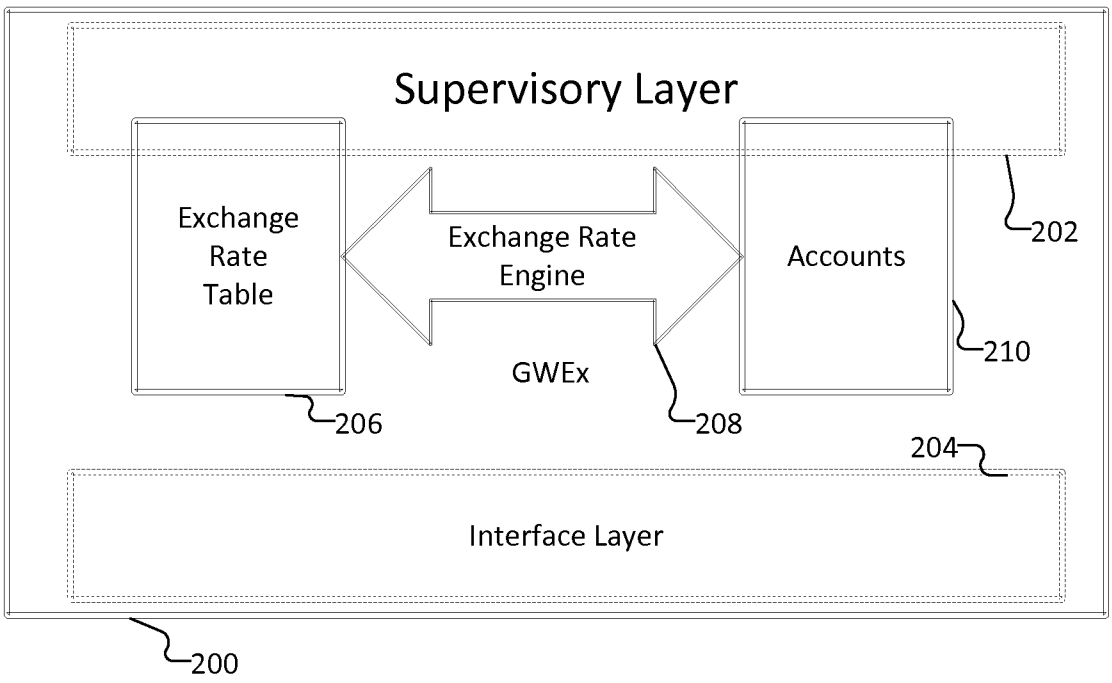

Supervisory Layer
Exchange Rate Table
Exchange Rate Engine
GWEx
Accounts
Interface Layer
202
204
206
208
210
200

Fig. 2

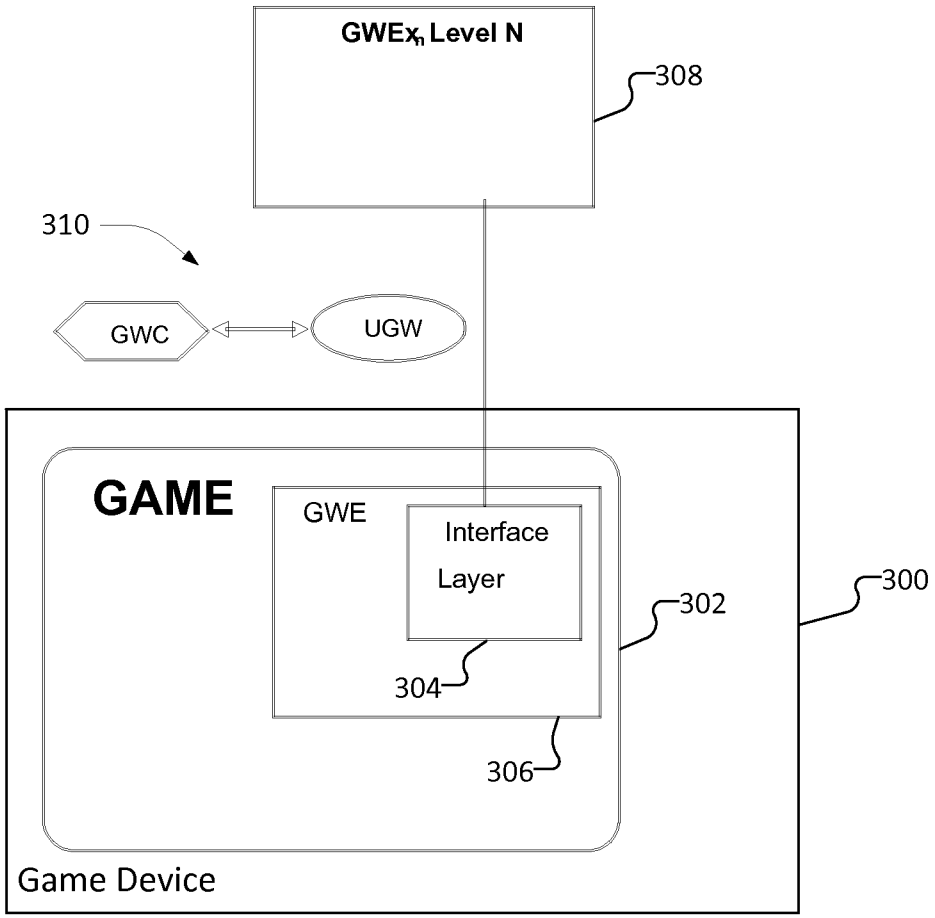

GWEx$_n$ Level N
308
310
GWC
UGW
GAME
GWE
Interface
Layer
302
300
304
306
Game Device

Fig. 3

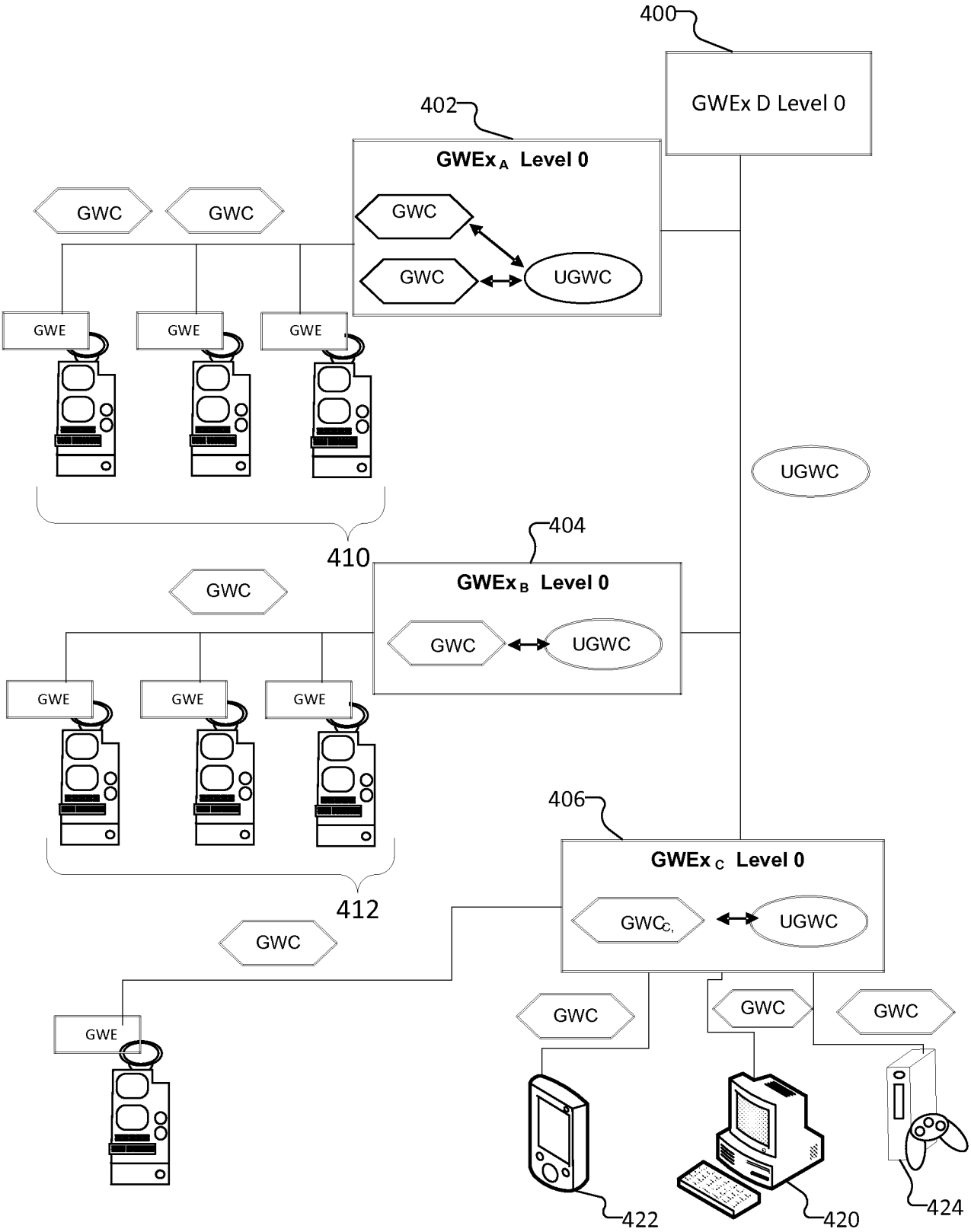

400
GWEx D Level 0
402
GWEx A Level 0
GWC
GWC
GWC
GWC
UGWC
GWE
GWE
GWE
UGWC
410
404
GWEx B Level 0
GWC
GWC
UGWC
GWE
GWE
GWE
406
GWEx C Level 0
GWC
UGWC
412
GWC
GWE
GWC
GWC
GWC
422
420
424

Fig. 4

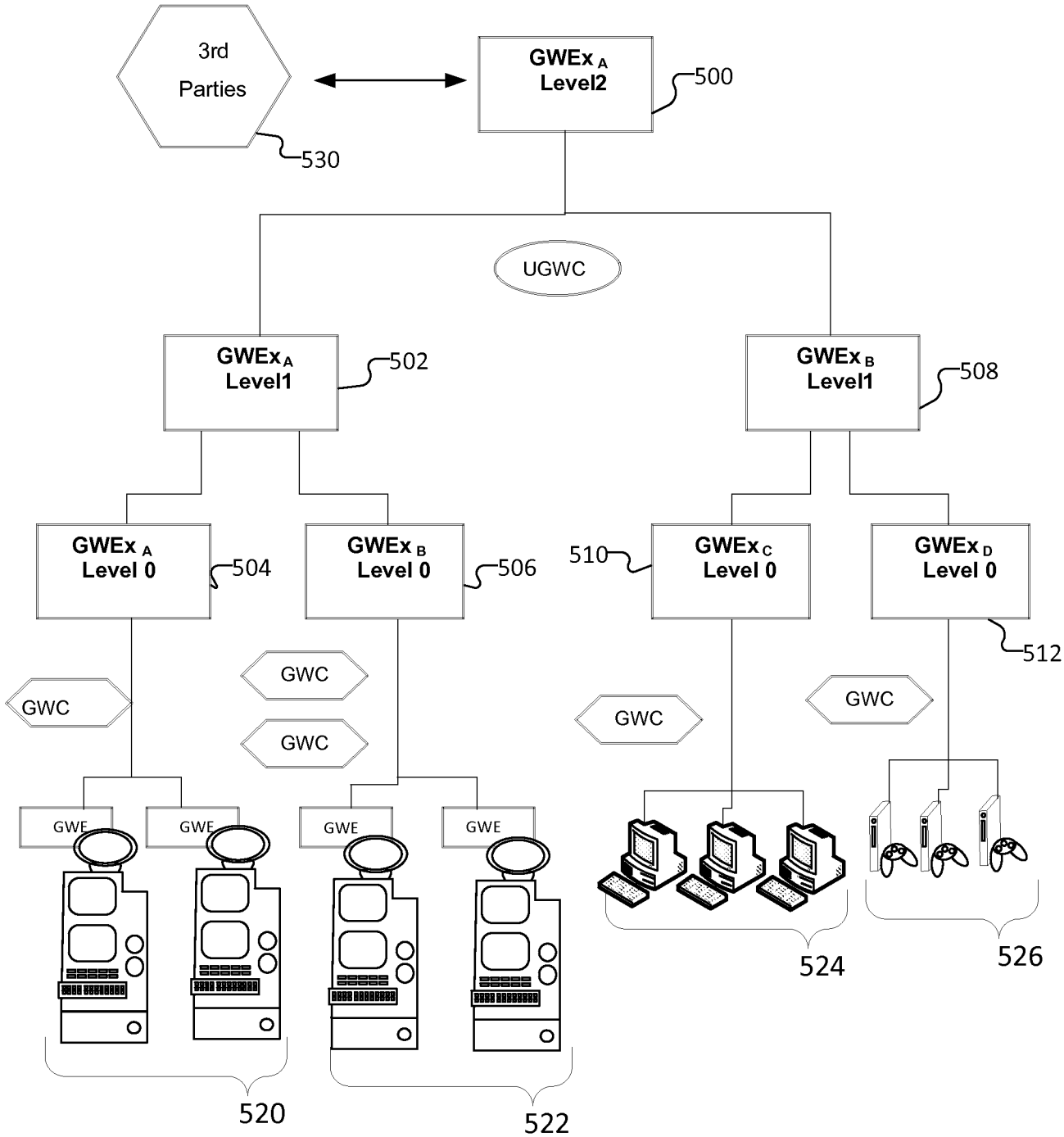

3rd Parties
530
GWEx A Level2
500
UGWC
GWEx A Level1
502
GWEx B Level1
508
GWEx A Level 0
504
GWEx B Level 0
506
510
GWEx C Level 0
GWEx D Level 0
512
GWC
GWC
GWC
GWC
GWC
GWE
GWE
GWE
GWE
520
522
524
526

Fig. 5

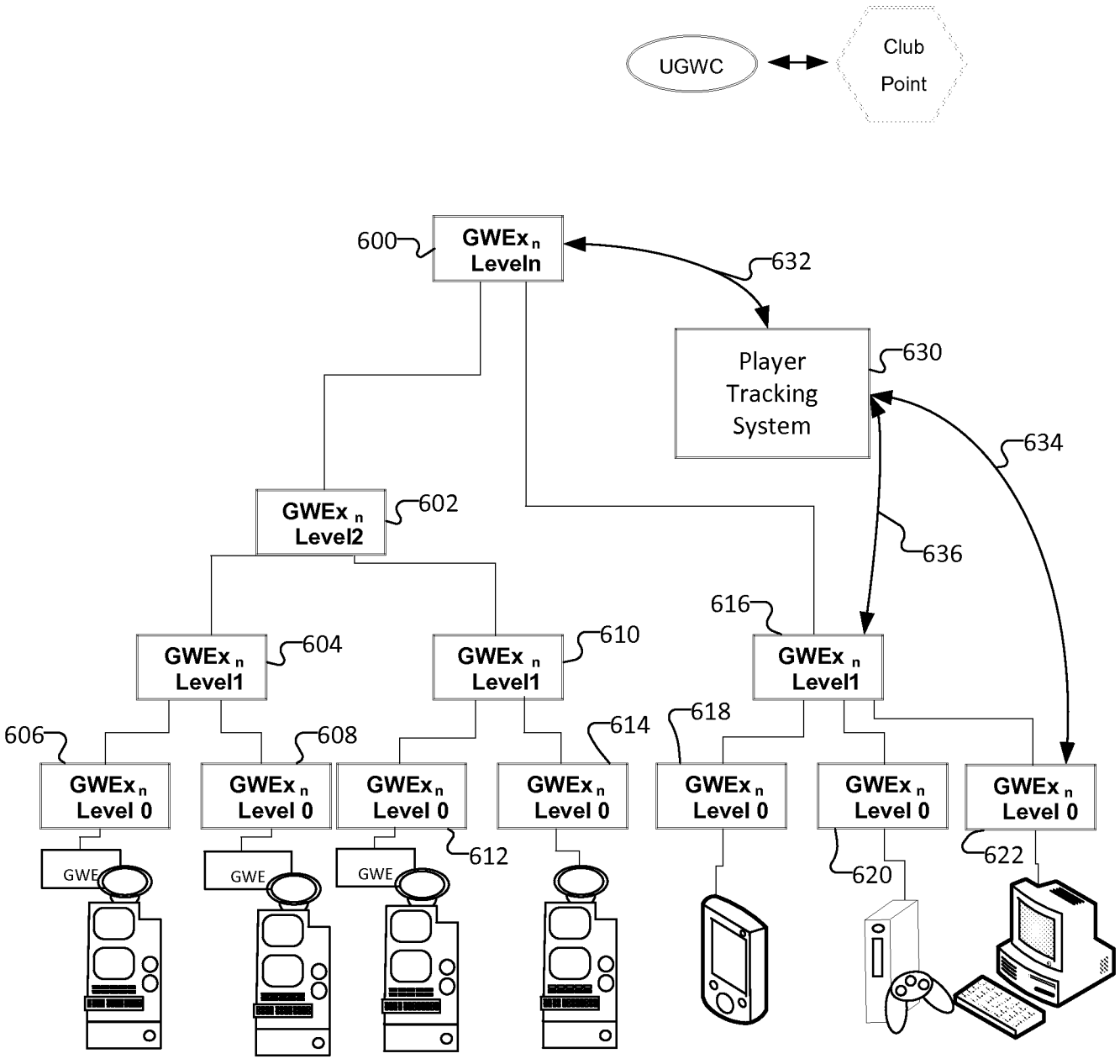

UGWC
Club
Point
600
GWEx n
LevelN
632
Player
Tracking
System
630
634
636
602
GWEx n
Level2
604
GWEx n
Level1
610
GWEx n
Level1
616
GWEx n
Level1
606
608
614
618
GWEx n
Level 0
GWEx n
Level 0
GWEx n
Level 0
GWEx n
Level 0
GWEx n
Level 0
GWEx n
Level 0
GWEx n
Level 0
GWE
GWE
GWE
612
620
622

Fig. 6

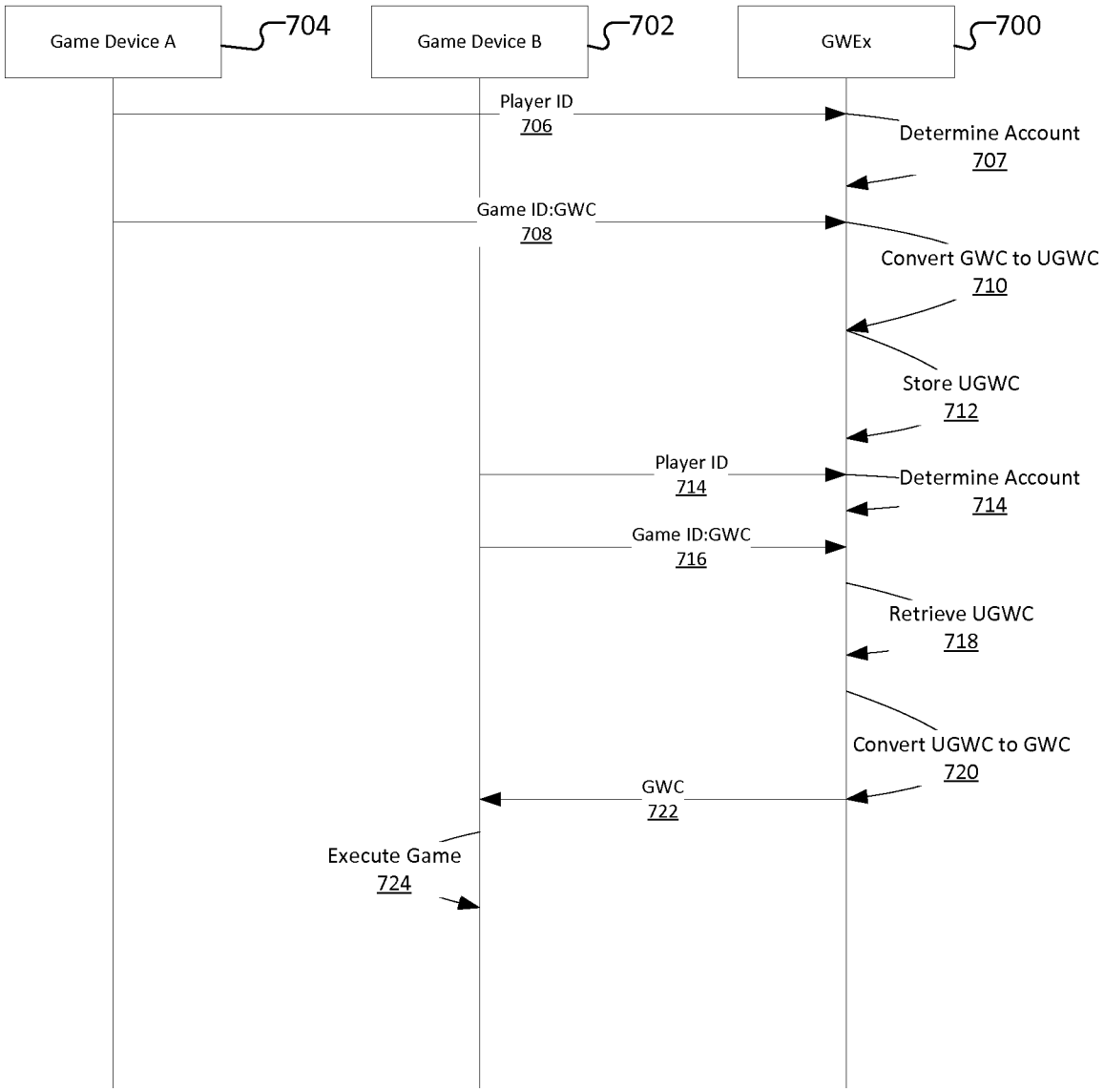

Game Device A
704
Game Device B
702
GWEx
700
Player ID
706
Determine Account
707
Game ID:GWC
708
Convert GWC to UGWC
710
Store UGWC
712
Player ID
714
Determine Account
714
Game ID:GWC
716
Retrieve UGWC
718
Convert UGWC to GWC
720
GWC
722
Execute Game
724

Fig. 7

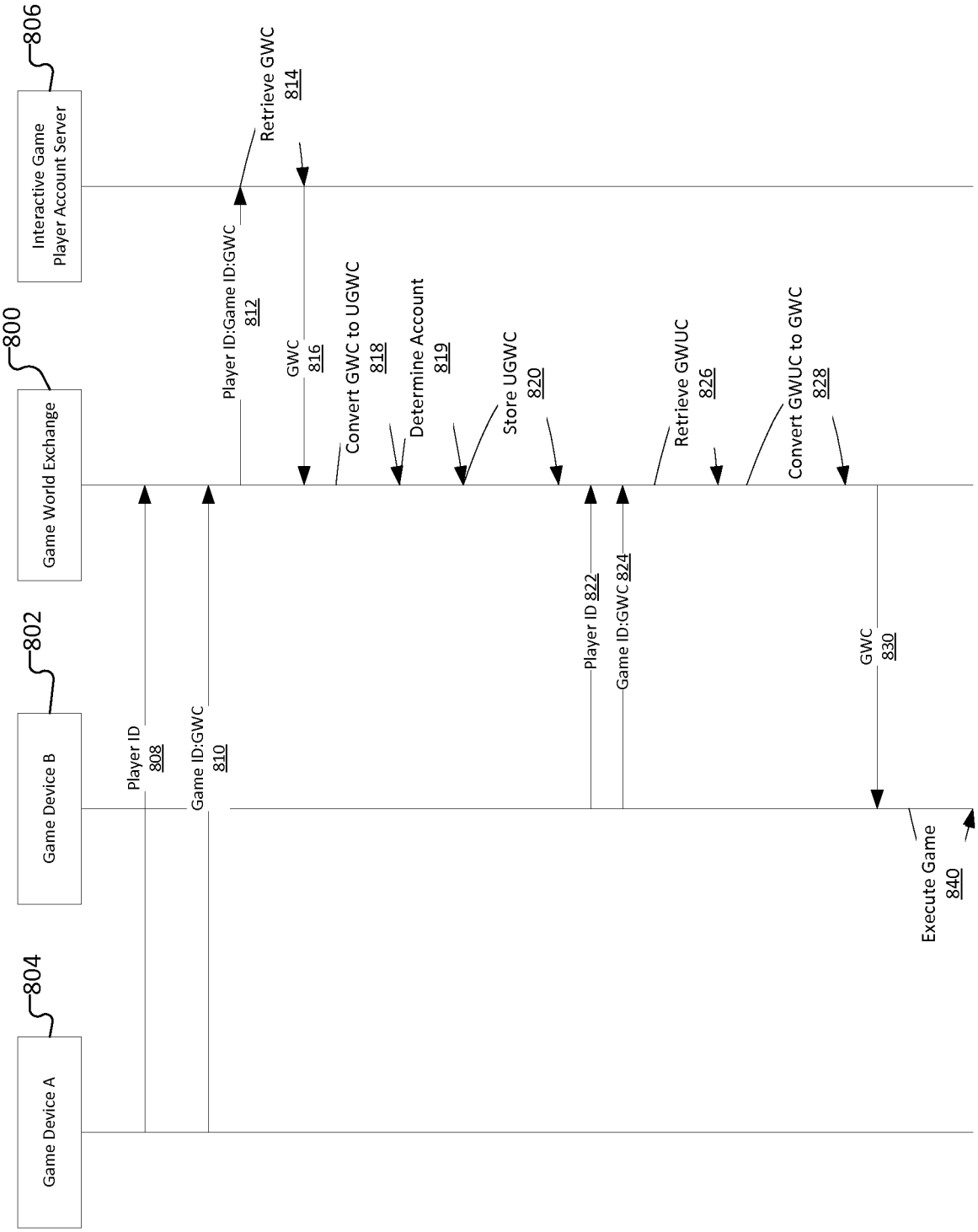

806
Interactive Game Player Account Server
800
Game World Exchange
802
Game Device B
804
Game Device A
Player ID 808
Game ID:GWC 810
Player ID:Game ID:GWC 812
Retrieve GWC 814
GWC 816
Convert GWC to UGWC 818
Determine Account 819
Store UGWC 820
Player ID 822
Game ID:GWC 824
Retrieve GWUC 826
Convert GWUC to GWC 828
GWC 830
Execute Game 840

Fig. 8

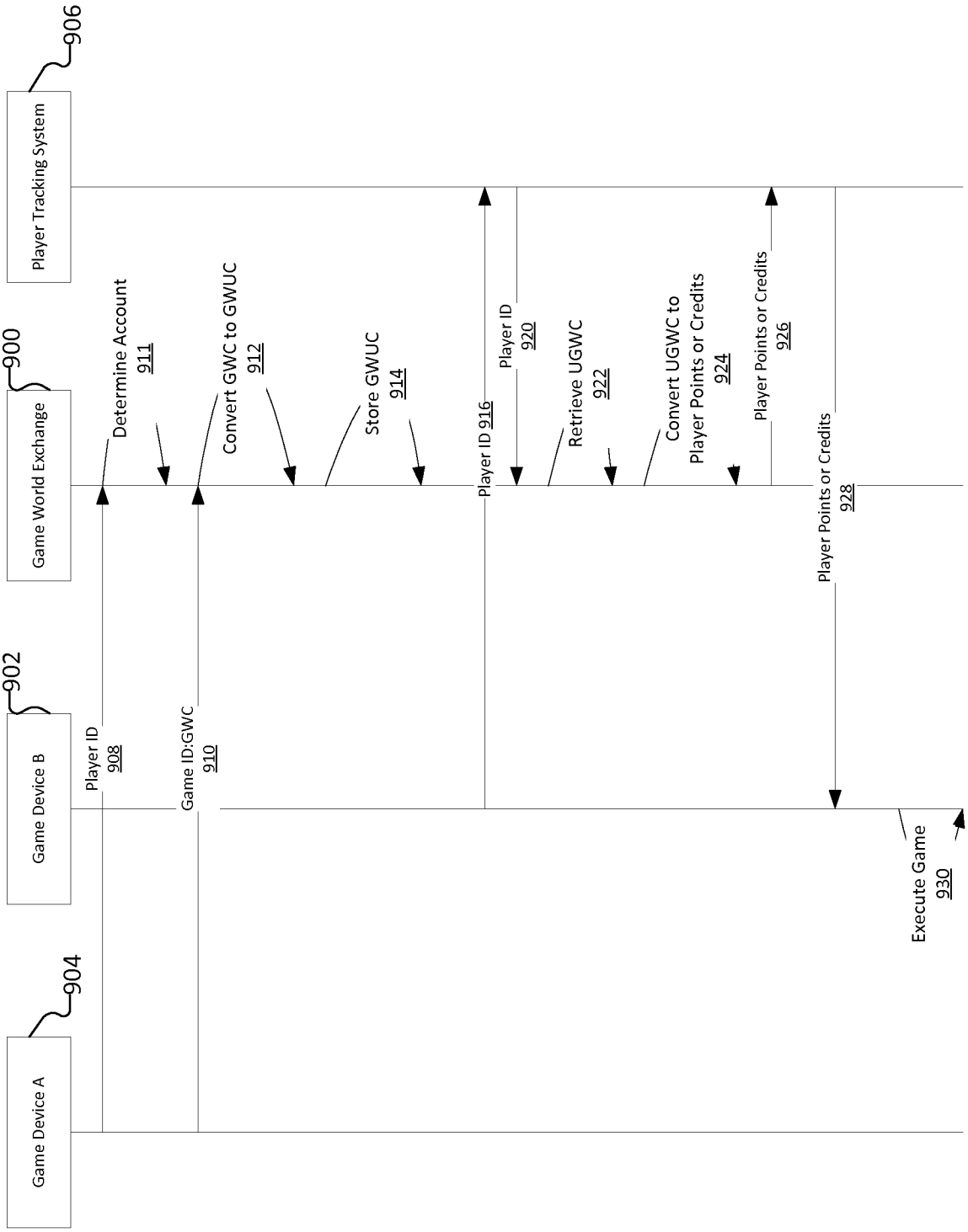
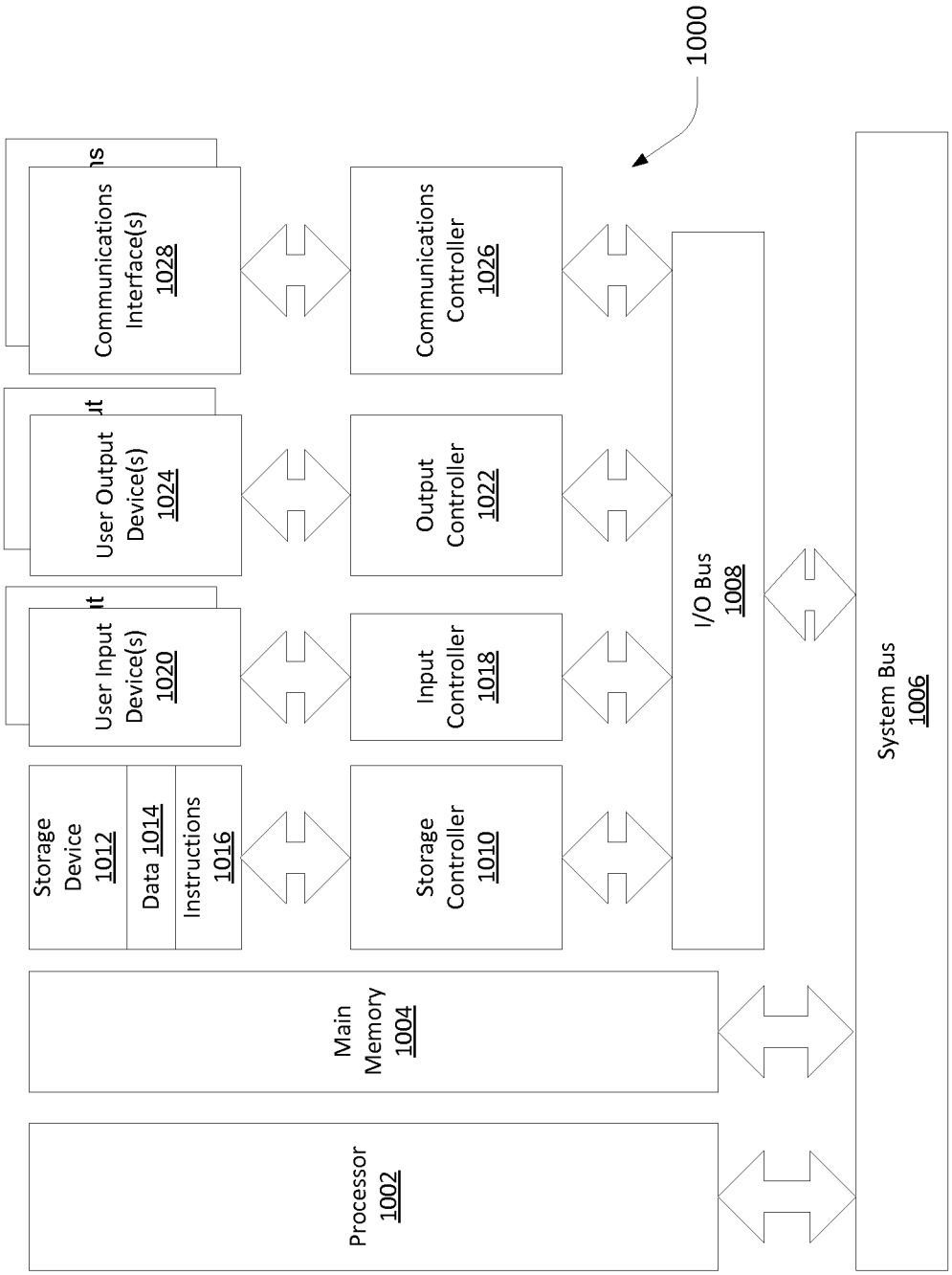
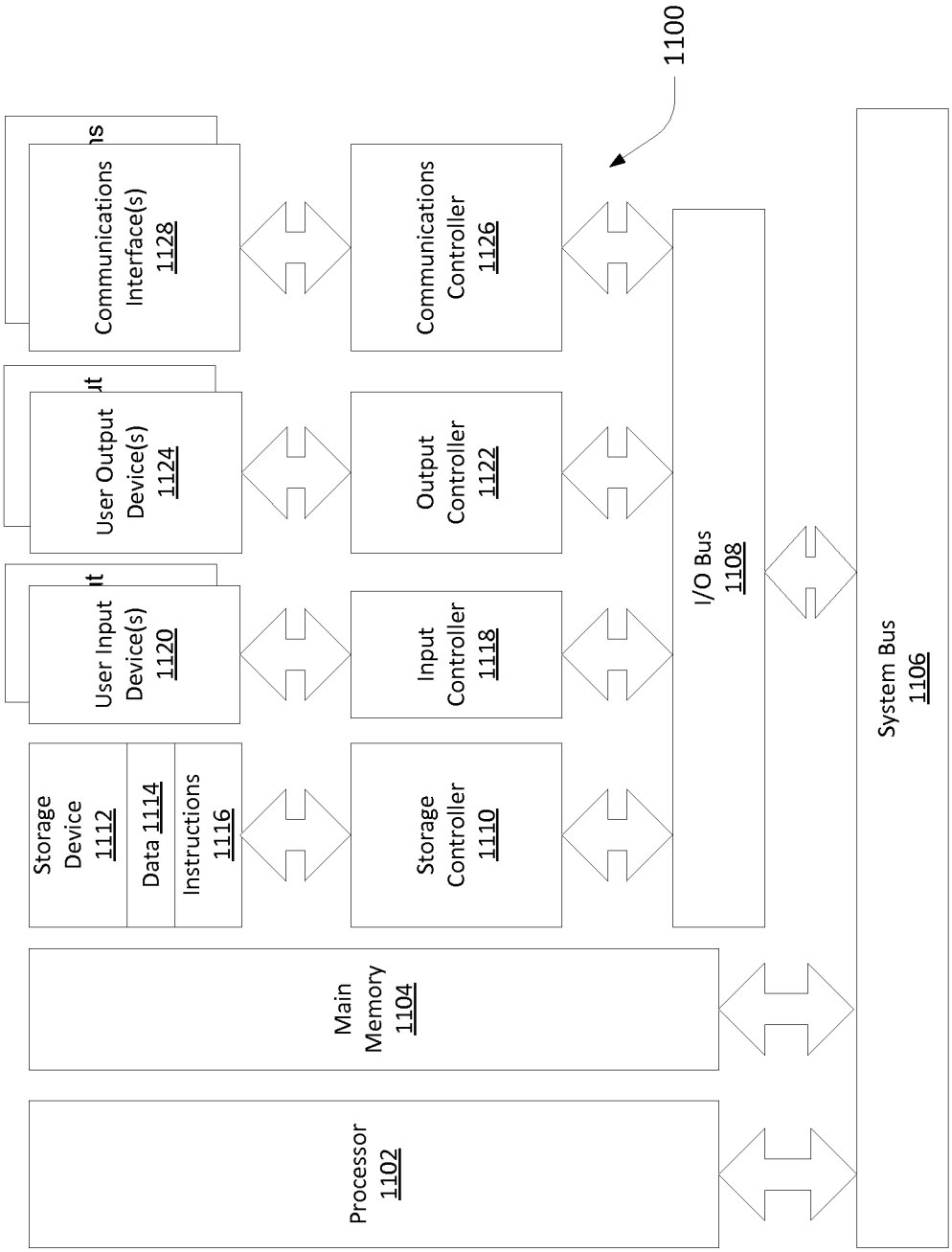

906
Player Tracking System
900
Game World Exchange
902
Game Device B
904
Game Device A
Player ID 908
Game ID:GWC 910
Determine Account 911
Convert GWC to GWUC 912
Store GWUC 914
Player ID 916
Player ID 920
Retrieve UGWC 922
Convert UGWC to Player Points or Credits 924
Player Points or Credits 926
Player Points or Credits 928
Execute Game 930

Fig. 9


1000
Communications Interface(s) 1028
Communications Controller 1026
User Output Device(s) 1024
Output Controller 1022
User Input Device(s) 1020
Input Controller 1018
I/O Bus 1008
System Bus 1006
Storage Device 1012
Data 1014
Instructions 1016
Storage Controller 1010
Main Memory 1004
Processor 1002

Fig, 10


1100
Communications Interface(s) 1128
Communications Controller 1126
User Output Device(s) 1124
Output Controller 1122
User Input Device(s) 1120
Input Controller 1118
I/O Bus 1108
Storage Device 1112
Data 1114
Instructions 1116
Storage Controller 1110
System Bus 1106
Main Memory 1104
Processor 1102

Fig, 11

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 12/32652

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - A63F 9/24 (2012.01)
USPC - 463/42
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC (8) - A63F 9/24 (2012.01)
USPC - 463/42

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
USPC - 463/7; 463/9; 463/1 (See Keywords Below)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Pub WEST (USPT, PGPB, JPAB, EPAB), Google Scholar
Search Terms: Game, terminal, console, machine, server, exchange, convert, trade, point, credit, token, win, outcome, universal, global, base, normal, identifier, account, player, wager, interactive game, plurality, multiple, network, store, mobile, console, computer, first.....

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2004/0092313 A1 (SAITO et al.), 13 May 2004 (13.05.2004), entire document, especially Abstract; para [0010], [0022], [0024]-[0025], [0077]-[0079]	1-4, 8-14 and 18-20 ---------- 5-7 and 15-17
Y	US 2008/0119283 A1 (BAERLOCHER), 22 May 2008 (22.05.2008), entire document, especially Abstract; para [0013]-[0015], [0022]-[0025]	5-7 and 15-17
A	US 2011/0045896 A1 (SAK et al.), 24 February 2011 (24.02.2011), entire document	1-20
A	WO 2010/087090 A1 (WATANABE), 05 August 2010 (05.08.2010), entire document	1-20
A	US 2007/0117641 A1 (WALKER et al.), 24 May 2007 (24.05.2007), entire document	1-20
A	US 2007/0167212 A1 (NGUYEN), 19 July 2007 (19.07.2007), entire document	1-20
A	US 5,718,429 A (KELLER, Jr), 17 February 1998 (17.02.1998), entire document	1-20

☐ Further documents are listed in the continuation of Box C. ☐

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
13 July 2012 (13.07.2012)	03 AUG 2012
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201	Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (July 2009)