A system and device for conducting a game of chance includes a removable data storage that stores one or more games of chance executable by a computer processor. Program instructions at the data storage or memory associated with the computer processor or at a server direct the relationship between the data storage and the computer processor. The computer processor conducts the game of chance and tracks a game history and a credit balance. Optionally, at the end of play, the game history and credit balance are locked.
FIG. 1

FIG. 2

FIG. 3
FIG. 4

FIG. 5
600 FIRST USE?

602 INSTALL PROGRAM INSTRUCTIONS

604 GENERATE KEY AND IDENTIFIER

608 UNLOCK CREDIT BALANCE AT DATA STORAGE

610 ESTABLISH CREDIT BALANCE

612 CONDUCT GAME OF CHANCE

614 GENERATE GAME HISTORY

616 STORE GAME HISTORY AT DATA STORAGE

618 UPDATE CREDIT BALANCE AT DATA STORAGE

620 END OF GAME PLAY?

620 LOCK GAME HISTORY AND CREDIT BALANCE AT DATA STORAGE.

FIG. 6
FIRST USE?

UNLOCK CREDIT BALANCE AT SERVER DATA STORAGE

CONDUCT GAME OF CHANCE

GENERATE GAME HISTORY

STORE GAME HISTORY AT DATA STORAGE

TEMPORARILY STORE CREDIT BALANCE AT DATA STORAGE

END OF GAME PLAY?

COMMUNICATE GAME HISTORY AND CREDIT BALANCE TO SERVER DATA STORAGE

LOCK GAME HISTORY AND CREDIT BALANCE AT SERVER DATA STORAGE

GENERATE KEY AND IDENTIFIER

ESTABLISH CREDIT BALANCE

STORE CREDIT BALANCE AT SERVER DATA STORAGE

COMMUNICATE CREDIT BALANCE TO DATA STORAGE

FIG. 7
SYSTEM AND DEVICE FOR CONDUCTING
A GAME OF CHANCE

FIELD OF THE INVENTION

[0001] The present invention relates to gaming apparatus. More specifically, the present invention relates to a system and device for conducting a game of chance at a computer device.

BACKGROUND OF THE INVENTION

[0002] Games of chance played in a casino environment have an element of excitement absent from the same game in a different locale. The glitz and glitter add something to the play. However, they also create a number of hurdles. Playing in a casino requires actually going to a casino, within associated costs and time expenditures. Playing in a casino requires actual risk of capital, except for the rare promotional or training event, in which play is for fun only. Playing in a casino is making the commitment to gamble, rather than simply to play.

[0003] Game players often seek a means to play casino games outside of a casino environment, to play without the reality of gambling, or both. Towards this end, portable gaming devices have been developed which conduct casino-like or other games in a non-casino environment. Many such devices are self-contained portable devices, such as the PlayStation or GameBoy, some of which come preprogrammed for a predefined set of games, others of which accept Read-Only-Memory (“ROM”) attachment containing game logic and/or data. Other devices are embodied in PC attachments and peripherals, containing the logic and/or data necessary to enable the play of casino-like games on the user’s personal computer.

[0004] Some such devices lack any data retention capability, and so no record is maintained of prior game activity and history. Others do retain such a track record of gaming activity and a net result of such activity. Devices with such a track record are capable of continued play, carrying the results of one game session as a starting point for the next. Some may also be capable of transportability, removal from one play device and attachment to another without losing prior results. Either type of device may provide entertainment and skills training to the player, but the devices which maintain a results history further provide a feedback loop which is highly beneficial for players who wish to hone their skills and improve their caliber of play. Such results history provides a measuring stick against which the player may rate their quality of play, and maximize their success over time.

[0005] Those portable gaming apparatus as are presently known in the art which provide for game results history are, however, prone to alteration. Lacking the security inherent in casino-based gaming activity, or even in interactive live internet based gaming activity, such portable devices are susceptible to hacking and other forms of data alteration. Such results manipulation destroys the skills training benefits of the device and, where prizes or other results-based consideration is involved, encourage cheating and unfair competition.

[0006] There is therefore a need in the art for a portable gaming apparatus which may be moved from one play device to another, which maintains a results history, and which is resistant to player alteration and tampering. Such a device may take the form of a PC peripheral device and utilize the hardware, software available with personal computers, and leverage the user familiarity generally inculcated in such devices. Furthermore, the security tools available with PCs and PC devices enables the development of a security protection sufficiently comprehensive as to thwart data tampering by all but the most sophisticated of hackers.

SUMMARY OF THE INVENTION

[0007] The present invention includes a system for conducting a game of chance. According to an optional embodiment, the present system includes a computer processor, such as at a general purpose computer. A removable data storage that is physically distinct from, and readable by, the computer processor stores at least one game of chance executable by the computer processor. A memory in communication with the computer processor stores program instructions executable by the computer processor. In one optional embodiment, the memory is physically associated with the data storage, such as a partition of the data storage. For example, in one such optional embodiment, the data storage is partitioned into at least two sub-components with the memory comprising one of the sub-components and the game of chance stored on a separate sub-component.

[0008] In an optional embodiment, the program instructions are generally directed to the operation of the data storage and the computer processor in conducting the game of chance. Thus, the program instructions could include many instructions. For example, in one optional embodiment, the program instructions randomly assign an identifier to the data storage.

[0009] In an optional embodiment where the data storage is writable by the computer processor, the program instructions comprise writing a credit balance at the data storage. In one such optional embodiment, the program instructions further comprise encrypting the credit balance. Optionally, the program instructions prevent access by the computer processor to alter the credit balance after writing the credit balance at the data storage.

[0010] Optionally, the system also includes a server processor in communication with the computer processor and a server data storage in communication with the server processor. In one such optional embodiment, the data storage is assigned a unique identifier and the server data storage stores a record associated with the unique identifier. Optionally, the record includes a credit balance. In one optional embodiment, the server processor reads the credit balance written to the data storage. In another optional embodiment, the server processor directs the computer processor to read the credit balance from the data storage and communicate the credit balance to the server processor. Optionally, the program instructions prevent access by the computer processor to alter the credit balance after writing the credit balance at the data storage until the server processor directs the computer processor to alter the credit balance.

[0011] In yet another optional embodiment, the game of chance directs the computer processor to generate a game history as the game of chance is executed. In one such optional embodiment, the data storage is writable by the
computer processor and the program instructions direct the computer processor to write the game history at the data storage.

[0012] As noted, the system may optionally include a server processor in communication with the computer processor. In one such optional embodiment, the server processor reads the game history written to the data storage. In another optional embodiment, the server processor directs the computer processor to read the game history from the data storage and communicate the game history to the server processor. In an optional embodiment, program instructions prevent access by the computer processor to alter the game history after writing the game history at the data storage. In an alternate optional embodiment, the program instructions prevent access by the computer processor to alter the game history after writing the game history at the data storage until the server processor directs the computer processor to alter the game history.

[0013] In an optional embodiment, the data storage is writable such that the data storage may be selectively supplemented with additional games of chance.

[0014] The present invention also includes a device for conducting a game of chance at a computer processor. The device includes a data storage physically distinct from the computer processor, that is readable by the computer processor. The data storage is partitioned into at least two sub-components: a first sub-component stores program instructions executable by the computer processor and a second sub-component stores at least one game of chance executable by the computer processor.

[0015] Optionally, the program instructions randomly assign a device address to the data storage.

[0016] In an optional embodiment, the data storage is writable by the computer processor and the program instructions comprise writing a credit balance at the data storage. In one such optional embodiment, the program instructions encrypt the credit balance. Optionally, the program instructions prevent access by the computer processor to alter the credit balance after writing the credit balance at the data storage.

[0017] In an optional embodiment, the game of chance directs the computer processor to generate a game history as the game of chance is executed. In one such optional embodiment, the data storage is writable by the computer processor and the program instructions comprise writing the game history at the data storage. Optionally, the program instructions prevent access by the computer processor to alter the game history after writing the game history at the data storage.

[0018] In an optional embodiment, a credit balance and a game history is written to a third sub-component on the data storage.

[0019] As mentioned above, in an optional embodiment, the data storage is writable such that the data storage may be selectively supplemented with additional games of chance.

BRIEF DESCRIPTION OF THE DRAWINGS

[0020] FIG. 1 is a block diagram of a system according to an embodiment of the present invention;

[0021] FIG. 2 is a block diagram of a system according to an embodiment of the present invention;

[0022] FIG. 3 is a block diagram of a system according to an embodiment of the present invention;

[0023] FIG. 4 is a block diagram of a device according to an embodiment of the present invention;

[0024] FIG. 5 is a block diagram of a device according to an embodiment of the present invention;

[0025] FIG. 6 is a flow chart of a process carried out by a system and device according to an embodiment of the present invention;

[0026] FIG. 7 is a flow chart of a process carried out by a system and device according to an embodiment of the present invention.

DESCRIPTION

[0027] Reference is now made to the figures wherein like parts are referred to by like numerals throughout. Referring to FIGS. 1-3, a system and device for conducting a game of chance at a computer processor 100 includes a data storage 102. The computer processor 100 could take many different forms including a general purpose computer, 15 such as a personal computer or PC, a handheld device, also known as a personal data assistant or PDA, a cellular telephone, a kiosk, a specific purpose gaming device, or any other type of data processor. The functioning of the computer processor 100 is described in greater detail below.

[0028] Optionally, the data storage 102 is a removable peripheral data device such as a 20 flash memory, optical storage, magnetic storage, or the like. For example, in one optional embodiment, the data storage 102 is flash memory that is physically separate from the computer processor 100 in that the data storage 102 communicates with the computer processor 100 through a serial port, such as a universal serial bus ("USB") port. In alternate optional embodiments, the data storage 102 may be a network-attached device, or other remote device, or multiple devices working in concert. It is noted that in an optional embodiment, the data storage 102 may include other features and functions beyond data storage 102 functions. For example, in an optional embodiment, the data storage 102 may be a cellular telephone, handheld device, PDA or the like that includes display and input functions. In such an optional embodiment, the data structure may display the game of chance or data relating to the game of chance, and receive input for conduct of the game of chance.

[0029] In an optional embodiment, the data storage 102 stores at least one game of chance executable by a computer processor 100. For example, in certain optional embodiments such as those shown in FIGS. 4 and 5, the data storage 102 is partitioned into sub-components 400, 402, 404, with a game of chance stored on one of the sub-components 402. The sub-component 402 containing the game of chance may be readable or readable-writable. That is, the game or games of chance stored on the data storage 102 may be fixed, or may be changeable. For example, in one optional embodiment, games of chance may be updated, exchanged, or supplemented by storing revised, different, or additional games of chance. For example, in one optional embodiment, discussed in greater detail below, the sub-component 402 may communicate directly or indirectly with a server that delivers games of chance to the data storage 102 such as through a file transfer or other download protocol. Alternatively, the sub-component 402 storing the game or games of chance is readable only. In such an optional embodiment, the game or games of chance may be fixed.

[0030] Referring generally to FIGS. 1-5, program instructions executable by a computer processor 100 govern the
execution of the game of chance and the relationship between the data storage 102 and a computer processor 100. The program instructions are stored in memory 104. In one optional embodiment, illustrated in FIG. 2, the memory 104 is physically associated with, or even part of, the data storage. For example, in one such optional embodiment, the data structure is partitioned into sub-components 400, 402, 404 with the program instructions stored at one of the sub-components 400.

[0031] In an alternate optional embodiment, illustrated in Fig. 4, the program instructions are stored in a memory 104 physically associated with the computer processor 100, such as in random access memory (“RAM”) associated with the computer processor 100. In yet another optional embodiment, the program instructions are stored in a more persistent data structure such as a hard drive, optical memory, magnetic memory, or the like. In another optional embodiment, illustrated in FIG. 3, the memory 104 storing the program instructions may be physically associated with the computer processor 100 through a network connection, wireless connection, or the like. For example, in an optional embodiment described in greater detail below, the computer processor 100 may communicate with a server. In an optional embodiment, the server may include memory 104 storing the program instructions.

[0032] Referring generally to FIGS. 1-5, the program instructions optionally include various components for the operation of the computer processor 100 and the data storage 102. Generally, the program instructions may include such features as security and/or data integrity procedures, record keeping procedures, or the like.

[0033] For example, in one optional embodiment, the program instructions may secure certain data from tampering by encrypting the data, preventing the computer processor 100 from overwriting or altering the data, or the like. Thus, in one such optional embodiment, when the data storage 102 is connected to the computer processor 100, the program instructions, which are either executed from the data storage 102 or installed into memory 104 local to the computer processor 100, cause the computer processor 100 to assign the data storage 102 a random identifier. Optionally, a key, such as a password, a pass code, the random identifier generated, or the like, is installed by the program instructions on both the data storage 102 and the computer processor 100 executing the program instructions. In a further optional embodiment, the program instructions encrypts the key. Optionally, the key is used in combination with the identifier in any transaction to verify the source of the data. For example, in an optional embodiment described in greater detail below, a credit balance or other credit data, game history or other game play data, or other data may be stored on the data storage 102. In one such optional embodiment, the data stored on the data storage 102 is verified using the key and/or the identifier. In another example, the key and/or identifier assigned to the data storage 102 is used to access or “unlock” a record stored remote from the data storage 102, such as at a server.

[0034] In an optional embodiment, the data storage 102 may additionally be writable. In one optional embodiment, a sub-component 404 of the data storage 102 is writable. In one such optional embodiment, a credit balance and/or game history may be written to the data storage 102.

[0035] For example, in one optional embodiment, a credit balance may be pre-written to the data storage 102. In one other optional embodiment, the computer processor 100, optionally under the direction of the program instructions or an optional server, may write a credit balance to the data storage 102. Optionally, the data storage 102 is a write-once-read-many (“WORM”) storage such that once written, the credit balance cannot be rewritten or altered. In another optional embodiment, the data storage 102 is read-write memory (“RWM”), but the program instructions, working alone or in combination with the key and/or identifier, may limit or prevent access to the credit balance data by the computer processor 100, server, or the like as well as the ability to rewrite or alter the credit balance. For example, in an optional embodiment including a server, the computer processor 100 may be restricted from writing, rewriting, or altering the credit balance stored at the data structure until instructed to do so by the server processor 300 at the server. In any of these optional embodiments, it may be the program instructions that reads the credit balance from the data storage 102 for use by the computer processor 100, server, or the like. It is noted here that in an optional embodiment in which the computer processor 100 communicates with a server, described in greater detail below, the credit balance may be stored at a server data storage 302 in addition to, or in place of, the data storage 102.

[0036] Similarly, the game of chance may generate a game history as it is executed by the computer processor 100. In an optional embodiment, the game history may be written to a writable sub-component 404 of the data storage 102. As described above, the integrity of the game history may be preserved by using WORM storage. Additionally or alternatively, the program instructions may limit or prevent access to the game history using security measures such as encryption, use of the key and/or the identifier, or other security measure as well as the ability to rewrite or alter the game history. For example, in an optional embodiment including a server, the computer processor 100 may be restricted from writing, rewriting, or altering the game history stored at the data structure until instructed to do so by the server processor 300 at the server. In any of these optional embodiments, it may be the program instructions that reads the game history from the data storage 102 for use by the computer processor 100, server, or the like. As with the credit balance, in an optional embodiment in which the computer processor 100 communicates with a server, the game history may be stored at a server data storage 302 in addition to, or in place of, the data storage 102.

[0037] As noted above, the device of the present invention may be part of a system according to an optional embodiment of the present invention. In such a system, a computer processor 100 physically separate from the removable data storage 102 may be used. The system further includes a memory 104 storing program instructions for the operation of the computer processor 100 with the removable data storage 102 to execute the game of chance. As noted above, the memory 104 may be physically associated with the computer processor 100, such as RAM or a hard drive used by the computer processor 100, or may be physically associated with the data storage 102, such as a partition or sub-component 400 of the data storage 102, or may be remote from the computer processor 100, such as on a networked server. In one optional embodiment, a sub-component 400 of the data storage 102 stores an installer that installs the program instructions on a memory 104 associated with the computer processor 100, e.g., RAM, hard
drive, or the like. In this manner, the data storage 102 may contain all the components needed for a computer processor 100 to use the data storage 102 and execute the game of chance stored thereon.

[0038] In a further optional embodiment, a server may be provided. It is contemplated that the server could take many different forms and perform any of a plurality of tasks such as storing files for transfer to and from the computer processor 100, storing the program instructions for operation of the computer processor 100, extracting data such as credit balance, game history, or the like from the computer processor 100, or other tasks. In one such optional embodiment, a server may include a server processor 300 and a server data storage 302. Optionally, the server data storage 302 includes one or more records associated to a data storage 102. In an optional embodiment in which the program instructions randomly generate an identifier for the data storage 102, records associated with a data storage 102 may be identified by the identifier for that data storage 102.

[0039] Referring to FIGS. 1-7, in use, the data storage 102 is placed in communication with the computer processor 100. As noted above, the data storage 102 is optionally a removable device, such as a flash memory connecting through a USB port. In such an example, the data storage 102 is placed in communication with the computer processor 100 by connecting to the port. In other examples, the data storage 102 may be a memory card, wireless device, wireless telephone or handheld device, or the like. In such optional examples, the data storage 102 may be placed in communication with the computer processor 100 using a wired or wireless communication link.

[0040] The program instructions governing use of the data storage 102 may be pre-loaded in memory 104 associated with the computer processor 100. In an optional embodiment, if the program instructions have not previously been installed because the data storage has not been previously used 600, they may be installed 602 in memory 104 associated with the computer processor 100 using an installer. The installer could be received from, and operate through, any medium. For example, in one optional embodiment, the installer is stored on a computer readable medium, such as a compact disc (“CD”), digital versatile disc (“DVD”), floppy disc, or the like, that is separate from the data storage 102. In another example, the installer may be downloaded from a networked device, such as a file server or the like. In yet another optional example, the installer may be stored on the data storage 102. As noted above, the installer may be stored on a separate sub-component 400 from the sub-component 402 storing games of chance and the sub-component 404 storing any writable credit and game history data.

[0041] In these optional embodiments, the installer installs 602 the program instructions. In an optional embodiment in which the data storage 102 is portable, that is, can be ported to different computer processors 100, the installer may install the program instructions each time the data storage 102 is placed in communication with a computer processor 100 for which the program instructions have been previously installed.

[0042] In another optional embodiment, the program instructions may be stored on, and executed from, the data storage 102. Such an optional embodiment may be directed to an application where it is desired not to store any data or program instructions on a memory 104 physically associated with the computer processor 100. In yet another optional embodiment, illustrated in FIG. 7, the program instructions may be stored on a server and, thus, may not need to be installed or re-installed as the data storage 102 is ported to different computer processors 100.

[0043] The data storage 102 may be pre-loaded with a credit balance and/or games of chance, or the like. In another optional embodiment, on the first use 600 of the data storage, the player may need to establish 604 a credit balance and/or obtain games of chance before conducting a game of chance. It is noted that the present invention may be directed for actual gaming in which the credits are backed by money or for entertainment gaming in which the credits are fictional, i.e. not backed by money. Where the credits are fictional, the data storage 102 may be preloaded with credits or may be enabled to increase the credit balance upon request.

[0044] In another optional embodiment, the credits are backed by money and must be obtained in some form of financial transaction. For example, in one optional embodiment, the program instructions direct the computer processor 100 to communicate with a server. A player establishes 604 a credit balance through the server, such as by purchasing credits in a financial transaction or otherwise obtaining credits. In one optional embodiment, illustrated in FIG. 6, the credit balance is stored 610 at the data storage 102. In another optional embodiment, illustrated in FIG. 7, the credit balance may be stored 702 at the server and may optionally be communicated 704 to the data storage 102, memory 104 associated with the computer processor 100, or a combination thereof. In an optional embodiment, an analogous procedure may be used for adding credits to the credit balance.

[0045] Referring generally to FIGS. 1-7, where the player already has a credit balance established, the data storage 102 and/or the server may already store a credit balance. In such an optional embodiment, placing the data storage 102 in communication with a computer processor 100 may trigger one or more security checks to ensure that the credit balance has not been tampered with. For example, a key or an identifier (both of which may have been generated 606 upon the first use of the data storage as discussed above) may be used to verify that the data storage 102 is authentic and that the data have not been altered since the prior use. In an optional embodiment using a server, records stored at the data storage 102 may be checked against records stored at the server.

[0046] As noted above, in an optional embodiment, illustrated in FIG. 7, a credit balance may be stored at a server. In one such optional embodiment, placing the data storage 102 in communication with the computer processor 100 enables the program instructions to “unlock” 706 the record at the server data storage 302 associated with the data storage 102. Optionally, the game history is stored 708 at the data storage 102. Similarly, the credit balance may optionally be temporarily stored 710 at the data storage 102. During game play or after the end of game play, the record, which may include a credit balance and game history, may be updated 712 one or more times. At the conclusion of game play, the record is “locked” 714 until the next game play. In similar fashion, a credit balance could be stored at memory 104 associated with the computer processor 100, e.g. the credit balance could be stored, unlocked (either continuously or at discrete points) when the data storage 102
is engaged to the computer processor 100, and locked when the data storage 102 is removed from the computer processor 100.

[0047] In an optional embodiment, illustrated in FIG. 6, the credit balance is stored 610 to the data storage 102, optionally in a sub-component 404 of the data storage 102. In a further optional embodiment, the credit balance is encrypted. In one optional embodiment, the credit balance may be stored at the data storage 102 as well as in at least one additional location, such as a server data storage 302 or a memory 104 associated with the computer processor 100.

In another optional embodiment, the credit balance is stored only at the data storage 102. Optionally, after writing the credit balance to the data storage 102, the program instructions or the read-write nature of the data storage 102 prevents the alteration or re-writing of the credit balance. In an optional variation on such an embodiment, the program instructions may include some security measure such as a key, identifier, or the like to permit certain authenticated transactions.

[0048] Referring generally to FIGS. 1-7, the game of chance is conducted 612, optionally by the computer processor 100. Where the game of chance is played purely for entertainment, a fee may be deducted from the credit balance for play. Where the gaming of chance is a wagering game, a wager may be deducted from the credit balance for play. The game of chance is conducted 612 and an outcome obtained. Optionally, the outcome of the game of chance results in a win, loss, or, in some optional embodiments, a push. In a wagering game, the wager is resolved; this may include the awarding of credits for a win, collecting the wager for a loss, and returning the wager for a push. In one optional embodiment, the credit balance may be updated with each outcome. In another optional embodiment, the credit balance is “locked” from alteration or re-writing; in such an optional embodiment, a temporary credit balance is maintained as credits are awarded and collected during game play and this temporary credit balance is stored in a game history. In yet another optional embodiment, the credit balance is updated 618 at a predetermined point, such as at the end of a gaming session.

[0049] For example, in one such optional embodiment illustrated in FIG. 7, the credit balance is stored at a server data storage 302 in a record associated with the data storage 102. As noted above, the association between the record and the data storage 102 may be on the basis of a randomly generated identifier. During game play, the credits lost or won during the game of chance are tracked by the program instructions and may be temporarily stored 710 at the data storage. At the end of game play, the new credit balance is communicated 712 to the server data storage 302. At the next game session, play is initiated with the new credit balance. It is noted that the step of communicating the credit balance could take many different forms. For example, the computer processor 100 may extract the credit balance from the data storage 102 and transmit the credit balance to the server or, in an alternate optional embodiment, the server may extract the credit balance from the data storage 102, bypassing the computer processor 100.

[0050] Referring generally to FIGS. 1-7, in an optional embodiment, as the game is conducted, the game of chance may generate 614 a game history. As an example, in a game of chance using playing cards, the game history may include data such as the wager placed, the cards dealt, the outcome obtained, the deck status (particularly when conducting a game in which the deck is not necessarily reconstituted after each outcome), and other game events. Optionally, as illustrated in FIG. 6, this game history is stored 616 to the data storage 102. In a further optional embodiment, illustrated in FIG. 7, in which the system includes a server, the game history is communicated 712 to the server. The communication of the game history to the server may take place in real time, periodically, upon demand, or on any other basis. For example, in one optional embodiment, the game history is communicated 712 to the server at the end of game play.

[0051] Referring generally to FIGS. 1-7, in an optional embodiment, the player may signal the end of game play; in one example, the player may actuate a “cash out” or “disconnect” button. In an optional embodiment in which a credit balance and/or game history are stored on the data storage 102, the signal of the end of game play 620 may cause the program instructions to finally update the credit balance and/or game history and “lock” 620 the credit balance and/or game history from being altered or rewritten until the data storage 102 is again engaged to a computer processor 100 and the program instructions notify the server storage that the associated data storage 102 is engaged and that the credit balance and/or game history may be unlocked 706.

[0052] Two example embodiments are now described in greater detail. These embodiments should be construed as exemplary only and their description herein should not be interpreted as limiting the alternative embodiments described above or recited in the claims presented.

[0053] In one example embodiment, the data storage 102 is a flash memory connectable to a PC through a USB port. The data storage 102 is partitioned into three sub-components 400, 402, 404 with one sub-component 402 storing at least one game of chance, one sub-component 400 storing program instructions or an installer for installing program instructions, and one sub-component 404 containing a writable storage.

[0054] When the data storage 102 is engaged to a computer terminal, the computer processor 100 executes the program instructions, or executes the installer to install the program instructions in a memory 104 associated with the computer processor 100. Under the direction of the program instructions, the computer processor 100 assigns a random identifier to the data storage 102 and generates a key, optionally encrypted, and stores the key on the data storage 102 and in memory 104 associated with the computer processor 100.

[0055] The computer processor 100 establishes a credit balance, such as by communicating with a server and conducting a financial transaction. The credit balance is stored on the data storage 102 and the program instructions prevent access to alter or rewrite the credit balance. The game of chance is executed by the computer processor 100. During the game of chance the computer processor 100
generates a game history that is stored at the data storage 102. Upon the termination of play, the credit balance is updated.

[0056] To adjust the credit balance, e.g., to purchase additional credits or "cash out" stored credits, the data storage 102 is engaged to a computer terminal. This may or may not be the same computer terminal used to conduct the game of chance. The program instructions communicate the credit balance and the game history to a server. Additionally, the program instructions may conduct integrity checks on the credit balance and game history data to attempt to detect alterations or tampering with the data. The server verifies the credit balance against the game history and, if the game history supports the credit balance, the player is enabled to add credits or "cash out" credits from the credit balance. After the credit transaction, the new credit balance is communicated from the server to the computer processor 100 for storage at the data storage 102.

[0057] In another example embodiment, the data storage 102 is a flash memory connectable to a computer terminal through a USB port. The data storage 102 stores at least one game of chance and includes a sub-component 404 with writable storage. In this optional embodiment, program instructions are stored at a server in communication with the computer processor 100.

[0058] When the data storage 102 is engaged to a computer terminal, the computer processor 100 executes the program instructions. Under the direction of the program instructions, the computer processor 100 assigns a random identifier to the data storage 102 and generates a key, optionally encrypted, and stores the key on the data storage 102 and in memory 104 associated with the computer processor 100.

[0059] The computer processor 100 establishes a credit balance, such as by communicating with a server and conducting a financial transaction. The credit balance is stored in a record on the server associated with the data storage 102, and stored temporarily at the data storage 102. The game of chance is executed by the computer processor 100. During the game of chance the computer processor 100 generates a game history that is stored at the data storage 102. Upon the termination of play, the record at the server data storage 302 is updated with the credit balance and the game history and the temporary credit balance stored at the data storage 102 is deleted.

[0060] To adjust the credit balance, e.g., to purchase additional credits or "cash out" stored credits, the data storage 102 is engaged to a computer terminal. This may or may not be the same computer terminal used to conduct the game of chance. The program instructions communicate the identifier associated with the data storage 102 (and optionally a key associated with the data storage 102) to a server. The server verifies the credit balance against the game history and, if the game history supports the credit balance, the player is enabled to add credits or "cash out" credits from the credit balance. After the credit transaction, the new credit balance is stored at the server in the record associated with the data storage 102.

[0061] While certain embodiments of the present invention have been shown and described it is to be understood that the present invention is subject to many modifications and changes without departing from the spirit and scope of the claims presented herein.

1 claim:
1. A system for conducting a game of chance comprising:
   a computer processor;
   a removable data storage physically distinct from said computer processor, said data storage readable by said computer processor, said data storage storing at least one game of chance executable by said computer processor; and
   a memory in communication with said computer processor, said memory storing program instructions executable by said computer processor.

2. The system of claim 1 wherein said memory is physically associated with said computer processor.

3. The system of claim 1 wherein said memory is physically associated with said data storage.

4. The system of claim 1 wherein said data storage is partitioned into at least two sub-components with said memory comprising one of said sub-components and said game of chance stored on a separate sub-component.

5. The system of claim 1 wherein said program instructions comprise randomly assigning an identifier to said data storage.

6. The system of claim 1 wherein said data storage is writable by said computer processor and said program instructions comprise writing a credit balance at said data storage.

7. The system of claim 6 wherein said program instructions further comprise encrypting said credit balance.

8. The system of claim 6 wherein said program instructions further comprise preventing access by said computer processor to alter said credit balance after writing said credit balance at said data storage.

9. The system of claim 1 further comprising:
   a server processor in communication with said computer processor; and
   a server data storage in communication with said server processor.

10. The system of claim 9 wherein said memory is physically associated with said server processor.

11. The system of claim 9 wherein said data storage is assigned a unique identifier and said server data storage stores a record associated with said unique identifier.

12. The system of claim 11 wherein said record includes a credit balance.

13. The system of claim 12 wherein said data storage stores a credit balance and said server processor is adapted to read said credit balance written to said data storage.

14. The system of claim 12 wherein said data storage stores a credit balance and said server processor is adapted to direct said computer processor to read said credit balance from said data storage and communicate said credit balance to said server processor.

15. The system of claim 12 wherein said program instructions further comprise preventing access by said computer processor to alter said credit balance after writing said credit balance at said data storage until said server processor directs said computer processor to alter said credit balance.

16. The system of claim 1 wherein said game of chance directs said computer processor to generate a game history as said game of chance is executed, said data storage is writable by said computer processor, and said program instructions comprise writing said game history at said data storage.
17. The system of claim 16 further comprising a server processor in communication with said computer processor, said server processor adapted to read said game history written to said data storage.

18. The system of claim 16 further comprising a server processor in communication with said computer processor, said server processor directing said computer processor to read said game history from said data storage and communicate said game history to said server processor.

19. The system of claim 16 wherein said program instructions further comprise preventing access by said computer processor to alter said game history after writing said game history at said data storage.

20. The system of claim 16 wherein said program instructions further comprise preventing access by said computer processor to alter said game history after writing said game history at said data storage until said server processor directs said computer processor to alter said game history.

21. The system of claim 1 wherein said data storage is writable such that said data storage may be selectively supplemented with additional games of chance.

22. A device for conducting a game of chance at a computer processor, comprising a data storage physically distinct from said computer processor, said data storage readable by said computer processor, said data storage partitioned into at least two sub-components wherein a first sub-component stores program instructions executable by said computer processor and a second sub-component stores at least one game of chance executable by said computer processor.

23. The device of claim 22 wherein said program instructions comprise randomly assigning an identifier to said data storage.

24. The device of claim 22 wherein said data storage is writable by said computer processor and said program instructions comprise writing a credit balance at said data storage.

25. The device of claim 24 wherein said program instructions further comprise encrypting said credit balance.

26. The device of claim 24 wherein said program instructions further comprise preventing access by said computer processor to alter said credit balance after writing said credit balance at said data storage.

27. The device of claim 22 wherein said game of chance directs said computer processor to generate a game history as said game of chance is executed, said data storage is writable by said computer processor, and said program instructions comprise writing said game history at said data storage.

28. The device of claim 27 wherein said program instructions further comprise preventing access by said computer processor to alter said game history after writing said game history at said data storage.

29. The device of claim 22 wherein said data storage is writable such that said data storage may be selectively supplemented with additional games of chance.

30. A device for conducting a game of chance at a computer processor physically associated with a memory, comprising a data storage physically distinct from said computer processor, said data storage readable by said computer processor, said data storage partitioned into at least three sub-components wherein a first sub-component stores an installer to install program instructions executable by said computer processor at said memory, a second sub-component stores at least one game of chance executable by said computer processor, and a third writable sub-component stores a credit balance and a game history generated as said computer processor executes said game of chance.

31. The device of claim 30 wherein said program instructions comprise randomly assigning an identifier to said data storage.

32. The device of claim 30 wherein said program instructions further comprise encrypting said credit balance.

33. The device of claim 30 wherein said program instructions further comprise preventing access by said computer processor to alter said credit balance after writing said credit balance at said third sub-component.

34. The device of claim 30 wherein said program instructions further comprise preventing access by said computer processor to alter said game history after writing said game history at said third sub-component.

35. The device of claim 30 wherein said second sub-component is writable such that said second sub-component may be selectively supplemented with additional games of chance.