A user terminal can receive game arcade information corresponding to the user of the user terminal from a server as a game arcade information acknowledgement. The user can select therefrom to specify a game arcade where a game machine in which a game element is made to appear is installed. The server stores additional information in association with selected game arcade information. When the server receives, from a game machine, a check request asking whether additional information is provided, the server determines whether the game machine is a game machine installed at the selected game arcade. When the game machine is a game machine installed at the selected game arcade, the server sends back a check acknowledgement to the game machine.
FIG. 5

- CPU
- RAM
- ROM
- HARD DISK
- COMMUNICATION INTERFACE
  - TBL2
  - ADDITION TABLE
  - TBL30
  - MANAGEMENT TABLE
  - TBL20
  - PLAYER TABLE
  - TBL10
  - GAME-ARCADE TABLE
  - TBL1
  - GAME-ARCADE TABLE
  - 305a
  - SAVE-DATA STORAGE AREA
  - 305b
  - GAME-DATA STORAGE AREA
  - 305c
  - RANKING-DATA STORAGE AREA
FIG. 7A

USER TERMINAL

AUTHENTICATION REQUEST

AUTHENTICATION PROCESS S1

AUTHENTICATION ACKNOWLEDGEMENT

GAME ARCADE INFORMATION REQ.

GAME ARCADE INFORMATION GENERATION PROCESS S2

GAME ARCADE INFORMATION ACK.

GAME ARCADE SELECTION PROCESS S3

ADDITION-INFORMATION GENERATION PROCESS S4

ADDITION REQUEST

ADDITION-INFORMATION STORAGE PROCESS S5

ADDITION ACKNOWLEDGEMENT

SERVER

GAME MACHINE 10A
FIG. 9A

20 USER TERMINAL

30 SERVER

10B GAME MACHINE

AUTHENTICATION REQUEST

ADDITION INFORMATION STORAGE PROCESS

ADDITION REQUEST

ADDITION INFORMATION STORAGE PROCESS

ADDITION ACKNOWLEDGEMENT

GAME START

WILL MONSTER BE ADDED?

NO

MANAGEMENT INFORMATION UPDATE

YES

BASIC GAME PROCESS

ADDITION GAME PROCESS

ADDITION TABLE UPDATE
FIG. 9B

20 USER TERMINAL

30 SERVER

10A GAME MACHINE

GAME RESULT NOTICE

GAME-RESULT STORAGE PROCESS \( S9 \)

END DETERMINATION PROCESS \( S10 \)

DELETION REQUEST \( S27 \)

ADDITION INFORMATION DELETION

RESULT NOTICE

DELETION ACKNOWLEDGEMENT
FIG. 10

20 USER TERMINAL

 AUTHENTICATION REQUEST

30 SERVER

GAME ARCADE SELECTION PROCESS

GAME ARCADE DESIGNATION REQUEST

MONSTER LIST GENERATION PROCESS

MONSTER LIST NOTICE

MONSTER DESIGNATION PROCESS

ADDITION REQUEST

ADDITION-INFORMATION STORAGE PROCESS

ADDITION ACKNOWLEDGEMENT
GAME SYSTEM, SERVER, GAME-SYSTEM CONTROL METHOD, SERVER CONTROL METHOD, AND STORAGE MEDIUM

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to game systems, servers, game-system control methods, server control methods, and storage media.

[0003] 2. Related Art

[0004] Role-playing games played with user terminals such as mobile terminals have been known (see Non-Patent Document 1, for example). In role-playing games, users nurture characters such as monsters. Other role-playing games in which players enjoy nurturing characters have been known also in game machines installed in game arcades such as amusement facilities. In addition, a technology has been known in which a user of a user terminal goes to a game arcade where a game machine is installed and makes a character nurtured in a game played with the user terminal appear in the game machine to further nurture the character in the game machine (disclosed in Patent Document 1).


[0007] In the conventional technologies, however, a user of a user terminal can make his or her character appear only in a game machine installed in a game arcade where the user visits. The user cannot make the nurtured character appear in a game machine installed in a game arcade at which the user is not present. In games played at game machines installed in game arcades, various types of game elements appear in addition to characters. The user, however, cannot make such game elements appear in the game machines with the use of the user terminal, such as a mobile terminal or a personal computer.

SUMMARY OF THE INVENTION

[0008] Accordingly, it is an object of the present invention to make a game element appear additionally in a game machine installed in a game arcade specified by a user of a user terminal.

[0009] To achieve the above-described object, a game system according to the present invention includes a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines. The user terminal sends to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, receives from the server a game arcade information acknowledgement that includes the game arcade information, and sends to the server an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information. The server generates the game arcade information and sends back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal; stores the selected game arcade information and the addition information included in the addition request, in association with each other, when receiving the addition request from the user terminal; determines, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and sends back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and sends back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information. The game machine executes the game, sends the check request to the server, and makes the game element indicated by the addition information appear in the game if the check acknowledgement includes the addition information, when receiving the check acknowledgement.

[0010] The game element can be anything that appears in the game. Examples of the game element include characters such as monsters, messages, background screens, game stages such as dungeons, puzzles, sound effects, music, and finger musical notes. The server may be formed of a plurality of apparatuses, and the plurality of apparatuses may be connected through a communication network such as the Internet.

[0011] Another game system according to the present invention includes a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines. The user terminal sends to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, receives from the server a game arcade information acknowledgement that includes the game arcade information, and sends to the server selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information. The server generates the game arcade information and sends back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal; stores addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal; determines, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and sends back to the game machine, when the
A typical example game executed in the user terminal is a browser game. The selected game arcade information sent from the user terminal to the server may include information directly indicating the game arcade selected by the user or information indirectly indicating the game arcade selected by the user. The information directly indicating the game arcade selected by the user is, for example, a game arcade ID identifying the game arcade. The information indirectly indicating the game arcade selected by the user is, for example, index information identifying a choice selected by the user from a plurality of choices provided by the server, or a URL that includes the index information.

Another game system according to the present invention includes a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines. The user terminal sends to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, receives from the server a game arcade information acknowledgement that includes the game arcade information, and sends selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information. The server generates the game arcade information and sends back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal; stores addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal; and sends the addition information stored in association with the selected game arcade information to the game machine installed at the game arcade indicated by the selected game arcade information. The game machine includes a plurality of game terminals, and a control unit that stores the addition information in a storage unit when receiving the addition information, executes the game in each of the plurality of game terminals, and makes the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit.

A typical example game executed in the user terminal is a browser game. The selected game arcade information sent from the user terminal to the server may be information directly indicating the game arcade selected by the user or information indirectly indicating the game arcade selected by the user. The information directly indicating the game arcade selected by the user is, for example, a game arcade ID identifying the game arcade. The information indirectly indicating the game arcade selected by the user is, for example, index information identifying a choice selected by the user from a plurality of choices provided by the server, or a URL that includes the index information.

Another game system according to the present invention includes a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines. The user terminal sends to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, receives from the server a game arcade information acknowledgement that includes the game arcade information, and sends selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information. The server generates the game arcade information and sends back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal; stores addition information indicating a game arcade installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal; and sends the addition information stored in association with the selected game arcade information to the game machine installed at the game arcade indicated by the selected game arcade information. The game machine includes a plurality of game terminals, and a control unit that stores the addition information in a storage unit when receiving the addition information, executes the game in each of the plurality of game terminals, and makes the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit.

A server according to the present invention is used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games. The server includes a communication unit for communicating with the user terminal and each of the game machines, and a control unit. The control unit generates, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and controls the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information; stores, when the communication unit receives from the user terminal an addition request that includes selected game arcade information indicating a game arcade installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the addition request from the user terminal; and sends the addition information to the game machine installed at the game arcade indicated by the selected game arcade information. The game machine includes a plurality of game terminals, and a control unit that stores the addition information in a storage unit when receiving the addition information, executes the game in each of the plurality of game terminals, and makes the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit.

Another game system according to the present invention includes a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines. The user terminal sends to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, receives from the server a game arcade information acknowledgement that includes the game arcade information, and sends selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information. The server generates the game arcade information and sends back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal; stores addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal; and sends the addition information stored in association with the selected game arcade information to the game machine installed at the game arcade indicated by the selected game arcade information. The game machine includes a plurality of game terminals, and a control unit that stores the addition information in a storage unit when receiving the addition information, executes the game in each of the plurality of game terminals, and makes the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit.
Another server according to the present invention is used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games. The server includes a communication unit for communicating with the user terminal and each of the game machines, and a control unit. The control unit generates, when the communication unit receives from the user terminal game arcade information indicating the game arcade is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

Another server according to the present invention is used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games. The server includes a communication unit for communicating with the user terminal and each of the game machines, and a control unit. The control unit generates, when the communication unit receives from the user terminal game arcade information indicating the game arcade is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

A typical example game executed in the user terminal is a browser game. In the servers described above, it is preferable that the storage unit store, for each user, related game arcade information indicating some game arcades to which the user is related among all of the game arcades; and the control unit identify a user who sent the game arcade information request when the communication unit receives the game arcade information request, and reference the storage content of the storage unit, read related game arcade information corresponding to the identified user, and use the related game arcade information as the game arcade information.

“Some game arcades to which the user is related” may include a game arcade that the user visited, a game arcade located in an area that includes the address of the user, or a game arcade selected in advance by the user among game arcades in the nation.

In the servers described above, it is preferable that the storage unit store, for each user, related game arcade information indicating some game arcades to which the user is related among all of the game arcades; and the control unit identify a user who sent the game arcade information request when the communication unit receives the game arcade information request, and reference the storage content of the storage unit, read related game arcade information corresponding to the identified user, and use the related game arcade information as the game arcade information.
and the related game arcade information corresponding to the other user as the game arcade information.

In the servers described above, it is preferable that the game arcade information request include designation information designating some or all of other users who have friendship with the user; the storage unit store, for each user, related game arcade information indicating some game arcades to which the user is related among all of the game arcades; and the control unit identify a user who sent the game arcade information request when the communication unit receives the game arcade information request, identify another user designated by the identified user and the designation information, and reference the storage content of the storage unit, read related game arcade information corresponding to the other user, and use the related game arcade information as the game arcade information.

In the servers described above, it is preferable that the game element be a character specified by the user, and the addition information include character information designating the character. The information designating the character is not character image data or data that stipulates character actions, but includes an identification code identifying the character.

In the servers described above, it is preferable that the character information include ability information indicating the level of ability of the character; the storage unit store the character information in association with the user; and the control unit update, when the communication unit receives from a game machine a result notice that includes result information indicating a change in the ability of the character based on an action result of the character that appeared in the game, the ability information stored in the storage unit according to the result information.

In the servers described above, it is preferable that the game be a battle game in which a character of a player of the game machine fights against another character; the other character include the character specified by the user of the user terminal, which appears in the game of the game machine according to the addition information; and the result information indicate a change in the ability of the character specified by the user of the user terminal according to a result of a battle between the character of the player of the game machine and the character specified by the user of the user terminal.

In the servers described above, it is preferable that the storage unit store management information indicating an appearance state in which the character appears in any of the game machines or a non-appearance state in which the character does not appear in any of the game machines, in association with the character information; and the control unit read the management information stored in the storage unit when the communication unit receives the check request, control the communication unit to send back to the game machine a check acknowledgement that includes the addition information and update the management information to the appearance state, and when the management information indicates the non-appearance state, control the communication unit to send back to the game machine a check acknowledgement that does not include the addition information and that indicates that the character appears, when the read management information indicates the appearance state, and update the management information to the non-appearance state when the communication unit receives the result notice from the game machine.

In the servers described above, it is preferable that the control unit measure time that elapsed from when the management information is updated to the appearance state, and update the management information to the non-appearance state when the measured time reaches a predetermined time.

The present invention also includes control methods for the game systems described above and control methods for the servers described above. In addition, the present invention also includes computer programs for causing a plurality of computers to function as the game systems described above and computer programs for causing a plurality of computers to function as the servers described above. The computer programs according to the present invention may be stored in computer-readable, non-transitory storage media and installed in computers or may be distributed through communication networks and installed in computers.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram showing the overall configuration of a game system 1A according to a first embodiment of the present invention.

FIG. 2 is a perspective view of the appearance of a game machine 10A.

FIG. 3 is a block diagram showing the electrical configuration of the game machine 10A.

FIG. 4 is a block diagram showing the electrical configuration of a user terminal 20.

FIG. 5 is a block diagram showing the electrical configuration of a server 30.

FIG. 6 is a block diagram showing another configuration of the server 30.

FIGS. 7A and 7B are sequence charts showing the operation of the game system 1A.

FIG. 8 is a block diagram showing the overall configuration of a game system 1B according to a second embodiment of the present invention.

FIGS. 9A and 9B are sequence charts showing the operation of the game system 1B.

FIG. 10 is a sequence chart showing an operation in which a monster is made to appear in the game machine 10A and a game machine 10B installed at a specified game arcade, according to a modification.

DETAILED DESCRIPTION OF EMBODIMENTS

Embodiments of the present invention will be described below with reference to the drawings. In the drawings, common parts have identical symbols.

1. First Embodiment

FIG. 1 is a block diagram showing the overall configuration of a game system 1A according to a first embodiment of the present invention. The game system 1A includes a plurality of game machines 10A, a plurality of user terminals 20, and a server 30. The game machines 10A are installed in amusement facilities (game arcades), and include token-operated game machines, for example.

The user terminals 20 have a communication function and can be any apparatuses so long as the users can play games with them. The user terminals 20 include mobile terminals and personal computers, for example.
The server 30 is connected to each of the game machines 10A and each of the user terminals 20 through a communication network NET, such as the Internet.

In each of the game machines 10A according to the present embodiment, a player thereof manipulates a main character to search a plurality of dungeons in a role-playing game. A dungeon is a game stage, and one game story completes in one dungeon. In each dungeon, a great number of enemy monsters appear and challenge the main character to do battle. The player manipulates the main character to search the dungeon while preventing the main character from being defeated by the enemy monsters. For example, the player uses an attacking magic card owned by the main character to attack an enemy monster, or uses a recovery magic card to recover the health points of the main character. A jewel item is located at the final floor of each dungeon. The dungeon is cleared (completed) when the jewel item is acquired. Clearing all dungeons means clearing the game. If the main character is attacked by an enemy monster, the health points of the main character are reduced. If the health points of the main character become 0, it means the game is over.

To challenge a new dungeon, the player of the game machine 10 needs to pay a challenge fee with a token or a credit. A credit is electronic data (numerical data) indicating the number of tokens owned by the player and stored in the game machine 10A. When the player inserts the tokens that he or she owns into the game machine 10A to make the tokens be stored as credits before starting playing a game, the player eliminates the burden of inserting tokens one after another during the game. The challenge fee differs depending on the dungeon. For example, the challenge fee is 10 tokens (or 10 credits) in a dungeon A, whereas the challenge fee is 20 tokens (or 20 credits) in a dungeon B.

Also when the player of the game machine 10A uses various types of magic cards in cases such as when the player uses an attacking magic card to attack an enemy monster, or uses a recovery magic card to recover the health points of the main character, the player needs to pay the use fees for the magic cards with tokens or credits. Dungeons have a shop where magic cards can be bought or sold. Also when the player buys a magic card at the shop, the player needs to pay a magic-card purchase fee with tokens or credits. The magic-card use fee and the magic-card purchase fee also differ depending on the type of cards. For example, the use fee is 2 tokens (or 2 credits) and the purchase fee is 5 tokens (or 5 credits) for a magic card A, whereas the use fee is 4 tokens (or 4 credits) and the purchase fee is 10 tokens (or 10 credits) for a magic card B.

As described above, the player of the game machine 10A needs to pay fees with tokens or credits when challenging a new dungeon, using a magic card, or buying a magic card. The player buys a magic card or uses a magic card while paying the fee therefor with tokens or credits to get an advantage in the game. The player appropriately determines the next action of the main character according to the game situation and inputs instructions for making the main character perform the determined actions one by one.

In each of the user terminals 20, a user thereof plays a role-playing game different from that executed in the game machines 10A. The game may be played by downloading a game program from the server 30 to the user terminal 20 and executing the game program in the user terminal 20, or may be a so-called browser game in which a game program stored in the server 30 is played in the server 30 according to instructions given from the user terminal 20 and the results are displayed to the user with a web browser installed in advance in the user terminal 20. In an example described below, a game program is executed in the user terminal 20.

FIG. 2 is a perspective view showing the appearance of the game machine 10A. The game machine 10A includes a display unit 11 where game images are displayed according to the advancement of the game, and two speakers 12 provided above the display unit 11. Below the display unit 11, a token slot 15 for inserting tokens, a token dispenser 16 for dispensing tokens, and a card slot 17 for inserting an IC card 40 are provided in addition to manipulanda, such as an operation lever 13 and operation buttons 14 (14a to 14e). For example, the player uses the operation lever 13 or the three operation buttons 14 (14a, 14b, and 14c) disposed to the right of the operation lever 13 to input various types of instructions necessary for advancing the game, such as an instruction to move the main character, an instruction to use a magic card, and an instruction to buy a magic card. The two operation buttons 14 disposed to the left of the operation lever 13 are a pay-out button 14d and a save and end button 14e. The pay-out button 14d is to instruct the game machine 10A to output the player's tokens stored therein. The save and end button 14e is to instruct the game machine 10A to store save data, to end the game, and to output the IC card 40. The IC card 40 has a card ID recorded thereon for identifying the card. The card ID is used to acquire a player ID for identifying the player at the server 30. More specifically, the server 30 stores a card ID and a player ID in association with each other for each player, and the player ID corresponding to a card ID is acquired by referring to the stored contents. The IC card 40 may store the player ID.

The game machine 10A also has a touch-sensitive input function. On the screen of the display unit 11, transparent electrodes for detecting the screen position where the player touches with the tip of his or her finger are provided. Therefore, without using the operation lever 13 or the operation buttons 14 (14a to 14e), the player can input various types of instructions just by touching the screen of the display unit 11 with the tip of his or her finger.

FIG. 3 is a block diagram showing the electrical configuration of the game machine 10A. A CPU 101 executes various types of programs stored in a ROM 102 or a hard disk 109 to control each part of the game machine 10A. The ROM 102 stores a program for handling the basic control of each part of the game machine 10A and other programs. A RAM 103 is used as a work area of the CPU 101. The work area includes, for example, a credit storage area 103a and a used-credit storage area 103b. The credit storage area 103a stores electronic data indicating the number of tokens owned by the player and stored in the game machine 10A, as credits. The used-credit storage area 103b stores a count used to count the total number of tokens or credits used by the player to clear a dungeon.

A communication interface 104 controls communications with the server 30. When the operation lever 13 or the operation buttons 14 (14a to 14e) are used, an operation unit 105 outputs an operation detection signal indicating the operation, and the output operation detection signal is detected by the CPU 101. The operation unit 105 also outputs a touch-position detection signal indicating the screen position where the player touches with the tip of his or her finger, and the output touch-position detection signal is detected by the CPU 101. When a token selector 106 detects a token...
inserted into the token slot 15, the token selector 106 outputs a token detection signal, and the output token detection signal is detected by the CPU 101. A token dispensing unit 107 dispenses the number of tokens corresponding to the credits stored in the credit storage area 103a, from the token dispenser 16, for example, when the pay-out button 14d is pressed. An IC card reader 108 reads the card ID from the IC card 40 inserted into the card slot 17. With the use of the read card ID, the player ID is acquired by predetermined means.

The hard disk 109 stores various types of programs and data necessary for controlling the game machine 10A to provide the above-described role-playing game, such as a control program 109a, and dungeon game data 109b distributed from the server 30. The role-playing game provided at the game machine 10A has about three to five dungeons. Each of the dungeons is updated, for example, every week, with the game data 109b distributed from the server 30. The game data 109b includes the map data of each new dungeon, the challenge fee in each dungeon, and data for enemy monsters appearing in each dungeon. The game machine 10A uses the game data 109b to generate a game image for each new dungeon or to control the operation of enemy monsters in each dungeon, for example. The hard disk 109 stores magic-card data, namely, the use fee, purchase fee, selling fee, effect, and other data for each magic card.

FIG. 4 is a block diagram showing the electrical configuration of the user terminals 20. A CPU 201 executes various types of programs stored in a ROM 202 to control each part of the user terminal 20A. The ROM 202 stores a program for handling the basic control of each part of the user terminal 20 and other programs. A RAM 203 is a rewritable memory and is used as a work area of the CPU 201. A communication interface 204 controls communications with the server 30. An operation unit 206 is formed of a ten-key pad, alphanumeric keys and other keys, and operation buttons. The operation unit 206 outputs an operation signal according to the operation of the user. The CPU 201 detects the operation signal and executes various types of control. A non-volatile memory 207 formed, for example, of a flash memory stores an application program such as a game program downloaded from the server 30.

With this user terminal 20, the user executes a role-playing game (nurturing game) in which monsters are nurtured. Among a plurality of monsters to be nurtured by the user, the user selects one and starts the game. In the game, when the monster of the user searches a dungeon, the user monster encounters an enemy monster and engages in battle. Each monster has a plurality of parameters, such as a level, experience points, health points, attack power, and defense power, as ability information. Monsters are nurtured through battles against enemy monsters, and each parameter changes in the battles. More specifically, when the user monster wins a battle against an enemy monster, the experience points increase. Every time the experience points reach a predetermined value specified in each level, the level increases and also the attack power, the defense power, and the maximum health point increase. The maximum health point indicates the upper limit of the health points, which increase or decrease during the game. When an enemy monster attacks the user monster during a battle against the enemy monster, the health points are reduced. When the health points reach 0, the enemy monster wins, and the user monster cannot search a dungeon until the health points recover to a predetermined value. The health points recover (increase) to the upper limit as time passes and also recover when an item is used.

When the game ends, the user terminal 20 sends a result notice of the nurturing game to the server 30. The result notice of the nurturing game includes character information that includes a character ID identifying the user monster and the parameters, used as monster ability information, and the player ID. The server 30 stores the character information and the player ID in a management table TBL 30.

FIG. 5 is a block diagram showing the electrical configuration of the server 30. A CPU 301 executes various types of programs stored in a ROM 302 or a hard disk 305 to control each part of the server 30. The ROM 302 programs in a program for controlling the basic control of each part of the server 30 and other programs. A RAM 303 is used as a work area of the CPU 301. A communication interface 304 controls communications with the game machines 10 and the user terminals 20. The hard disk 305 stores a game arcade table TBL 1 and an addition table TBL 2. The hard disk 305 also stores a game state where the player ended last time. The save data includes, for example, with a save-data storage area 305a, a game-data storage area 305b, and a ranking-data storage area 305c. In other words, the hard disk 305 serves as a storage unit of the server 30. A configuration is employed in which an external apparatus (such as an external server) separated from the server 30 is provided with the hard disk 305 and the server 30 sends and receives information to and from the hard disk 305 through the communication network NET. In short, the hard disk 305 is not indispensable to the server 30.

An all-game-arcade table TBL 10 stores a game arcade ID for identifying each game arcade and the name of that game arcade in association with each other. A player table TBL 20 stores player IDs and card IDs in association with each other. The game-arcade table TBL 1 stores game IDs and related-game-arcade information in association with each other. The related-game-arcade information indicates some game arcades related to the user among all the game arcades and includes one game arcade ID or more. The related-game-arcade information includes, for example, the game arcade ID of a game arcade the user visited in the past, the game arcade ID of a game arcade specified when the user enrolled as a member. Information of a game arcade the user visited in the past is generated in the following way. First, when the IC card 40 is inserted to play the game on the game machine 10A, the server 30 receives the card ID and the game arcade ID. Second, the CPU 301 references the player table TBL 20 to acquire the player ID corresponding to the received card ID. Third, the CPU 301 stores the player ID and related-game-arcade information (game arcade ID) in the game arcade table TBL 1.

The addition table TBL 2 stores a player ID, addition information included in an addition request, to be described later, selected game arcade information included in the addition request, management information indicating whether a monster appears or not, and a battle result against a main character, in association with each other.

The save-data storage area 305a stores the save data of each player for the game of the game machine 10A and the player ID in association with each other. The save data is required when the player restarts the game in the game machine 10A from the game state where the player ended last time. The save data includes, for example, data indicating the
game progress state, data related to the level and health points of the main character, and data related to magic cards owned by the main character.

[0063] The game-data storage area 305b stores game data distributed to each game machine 10A. As described above, the game data includes the map data for each new dungeon, the challenge fee in each dungeon, and the data related to enemy monsters appearing in each dungeon. The game data is appropriately updated by a game manufacturer that operates the game system 1A or the like. The ranking-data storage area 305c stores ranking data that indicates the rank of each player.

[0064] The server 30 distributes new game data stored in the game-data storage area 305b to each game machine 10A. When the game machine 10A receives the new game data from the server 30, the game machine 10A updates the game data 109b (that includes a reference-value storage table 110) stored in the hard disk 109. The server 30 can distribute a part of the whole of a control program to the game machine 10A, together with the new game data. In that case, the game machine 10A updates not only the game data 109b but also a part or the whole of the control program 109a.

[0065] To finish playing the game in the game machine 10A, the player presses the save and end button 14e. When the CPU 101 of the game machine 10A finds that the save and end button 14e was pressed, the CPU 101 reads various types of data to be stored as save data, from the RAM 103 and the hard disk 109 and sends them to the server 30 together with the player ID. The save data is as described above, but includes the count stored in the used-credit storage area 103b. After the CPU 101 sends the save data, the CPU 101 performs control so as to eject the IC card 40 from the card slot 17. When the server 30 receives the save data and the player ID from the game machine 10A, the server 30 stores them in association with each other in the save-data storage area 305a of the hard disk 305.

[0066] When the player restarts the game in the game machine 10A, the player inserts the IC card 40 into the card slot 17. The CPU 101 performs control such that the IC card reader 108 reads the card ID from the IC card 40, the CPU 101 acquires the player ID from the read card ID by predetermined means, and the CPU 101 sends the player ID to the server 30. When the server 30 receives the player ID from the game machine 10A, the server 30 reads the save data corresponding to the player ID from the save-data storage area 305a, and sends it back to the game machine 10A. When the CPU 101 of the game machine 10A receives the save data from the server 30, the CPU 101 stores it in the RAM 103 and starts a game restart process. The CPU 101 sets the count of the used credit included in the save data, in the used-credit storage area 103b of the RAM 103.

[0067] When the player finishes playing the game in the game machine 10A, after the player presses the save and end button 14e to store the save data in the server 30, the player can press the pay-out button 14d to output the number of tokens corresponding to the credits from the token dispenser 16. In this case, the player can insert the output tokens in an automatic token teller machine installed in the game arcade to store them until the player restarts the game. The automatic token teller machine counts the number of inserted tokens and stores electronic data indicating the number of tokens inserted by the player and individual authentication information in association with each other.

[0068] The server 30 may be formed of a first server 30A and a second server 30B, as shown in FIG. 6. In that case, the first server 30A provides the user terminals 20 with the game program of a nurturing game and also manages the results of the game, while the second server 30B communicates with the game machines 10A and manages the progress and results of the game. The first server 30A and the second server 30B can communicate with each other through the communication network 107, such as a leased line or the Internet.

[0069] FIGS. 7A and 7B show the sequence of the operation of the game system 1A. This sequence describes the operation flow of a case in which the user makes a monster appear in a game played in a game machine 10A installed in the game arcade specified by the user. It is assumed that the user has already owned monsters used in a role-playing game played with the user terminal 20.

[0070] When the user accesses the server 30 from the user terminal 20, the user terminal 20 sends an authentication request to the server 30. The authentication request includes the player ID and a password. Any pair of information items can be used so long as they are linked to the player ID in one-to-one correspondence, such as a pair of a user name and a password.

[0071] When the server 30 receives the authentication request, the CPU 301 of the server 30 executes an authentication process S1. In the authentication process S1, the server 30 determines whether the stored player ID and password pair matches the received player ID and password pair. When they match, the server 30 permits login; if they do not match, the server 30 does not permit login. The CPU 301 controls the communication interface 304 so as to send back to the user terminal 20 an authentication acknowledgement that includes the determination result. In the following description, it is assumed that login is permitted.

[0072] When the user terminal 20 receives the authentication acknowledgement, the user is permitted to log in the server 30 and the user can access the monsters managed by the server 30 and owned by the user. Next, when the user gives an instruction to make the monsters appear in a game of a game machine 10A, the CPU 201 of the user terminal 20 controls the communication interface 204 so as to send to the server 30 a game-arcade information request asking for a game arcade where a game machine 10A in which the user can make the monsters appear is installed.

[0073] When the server 30 receives the game-arcade information request, the CPU 301 of the server 30 executes a game-arcade information generation process S2. In the game-arcade information generation process S2, the CPU 301 first identifies the user and then generates game arcade information corresponding to the identified user. In the user identifying process, the player ID determined in the authentication process may be used. When the game arcade information request includes the player ID, that player ID may be used to identify the user. Next, the CPU 301 references the game arcade table TBL 1, reads the related game arcade information corresponding to the player ID, and generates game arcade information that includes the game arcade information indicated by the related game arcade information as game arcades where a game machine 10A in which the user can make the monsters appear is installed. Then, the server 30 controls the communication interface 304 so as to send back to the user terminal 20 a game arcade information acknowledgement that includes the generated game arcade information.

[0074] When the user terminal 20 receives the game arcade information acknowledgement, the CPU 201 of the user terminal 20 executes a game arcade selection process S3. In the
game arcade selection process S3, the CPU 201 displays the names of the game arcades that can be selected by the user on the display unit 205, according to the game arcade information included in the game arcade information acknowledgement. It is preferable that the game arcade information include the names of the game arcades and game arcade IDs used to identify the game arcades. More specifically, when the user uses the operation unit 206 to select the name of a game arcade where a game machine 10A in which the user will make the monsters appear is installed, the CPU 201 generates selected game arcade information corresponding to the name of the selected game arcade. The selected game arcade information may include only the game arcade ID or may include the game arcade name and game arcade ID pair.

[0075] Next, the CPU executes an addition-information generation process S4. In the addition-information generation process S4, the user specifies a monster to be made to appear in a game machine 10A installed in the game arcade selected in the game arcade selection process S3, among the various types of monsters nurtured in the role-playing game played by the user with the user terminal 20. More specifically, when the user operates the operation unit 206, the various types of monsters managed by the user are displayed on the display unit 205. When the user operates the operation unit 206 to select one or a plurality of monsters among the displayed various types of monsters, the CPU 201 generates addition information that specifies the selected monster. This addition information indicates a game element (the content of a game element) to be added to and made to appear in the game to be played in a game machine 10A. The addition information in the current case includes the character ID identifying the monster and various types of parameters of the monster. The parameters of the monster include the health points, attack power, and defense power, as well as ability information, and the level and experience points, as growth information. The parameters of the monster increase as the user nurtures the monster in the role-playing game played by the user with the user terminal 20. The addition-information generation process S4 may be executed at any time between the authentication acknowledgement and when an addition request is sent. After the addition-information generation process S4 is executed, the user terminal 20 sends an addition request that includes the selected game arcade information and the addition information to the server 30. Since the character ID included in the addition information is an identifier (identification code, for example) that identifies the monster, the amount of transmission data can be reduced in the above-described configuration, compared with a configuration in which addition information that includes monster image data and data that stipulates monster actions, instead of the character ID, is sent.

[0076] When the server 30 receives the addition request, the CPU 301 executes an addition-information storage process S5. Specifically, the CPU 301 stores in the addition table TBL 2 the player ID, the addition information included in the addition request, and the selected game arcade information included in the addition request in association with each other. Then, the CPU 301 controls the communication interface 304 so as to send back to the user terminal 20 an addition acknowledgement indicating that the addition request has been accepted. With this, the user can understand that preparation has been made for making the monster appear in a game machine 10A installed in the specified game arcade.

[0077] On the other hand, the CPU 101 of a game machine 10A controls the communication interface 104 so as to send to the server 30 a check request asking whether addition information for making a monster appear in the game machine 10A has been set. The check request may be sent to the server 30 at any time, but it is preferable that the check request be sent at the start of the game in the game machine 10A because one object of the game system I.A of the present invention is to make a monster of the user of the user terminal 20 and the main character of the player of the game machine 10A do battle in the game of the game machine 10A. The check request includes game-arcade identifying information for identifying the game arcade where the game machine 10A has been installed. Each game machine 10A stores the game-arcade identifying information in advance. The game-arcade identifying information is input by an administrator when the game machine 10A is installed in the game arcade. The CPU 101 stores the input game-arcade identifying information in a rewritable non-volatile memory such as the hard disk 109.

[0078] When the server 30 receives the check request, the CPU 301 executes a determination process S6. In the determination process S6, the CPU 301 first references the addition table TBL 2 to determine whether selected game arcade information corresponding to the game arcade indicated by the game-arcade identifying information included in the check request has been stored. Second, when selected game arcade information corresponding to the game arcade indicated by the game-arcade identifying information has been stored, the CPU 301 reads management information corresponding to selected game arcade information. The management information indicates an appearance state in which the monster now appears in any of the game machines 10A or a non-appearance state in which the monster now does not appear in any of the game machines 10A. Third, when selected game arcade information corresponding to the game arcade indicated by the game-arcade identifying information has not been stored in the addition table TBL 2, the CPU 301 generates a check acknowledgement indicating no addition of a monster. Fourth, when the management information indicates the appearance state, the CPU 301 generates a check acknowledgement indicating that a monster now appears in any of the other game machines 10A. Fifth, when the management information indicates the non-appearance state, the CPU 301 generates a check acknowledgement that includes the addition information, changes the management information to indicate the appearance state, and updates the storage content of the addition table TBL 2. Then, the CPU 301 controls the communication interface 304 so as to send the check acknowledgement to the game machine 10A.

[0079] When the game machine 10A receives the check acknowledgement, the CPU 101 determines whether the check acknowledgement includes addition information (S7). If addition information is not included, the CPU 101 executes a basic game in which an additional monster does not appear. When addition information is included, the CPU 101 executes an addition game process (S8a). Specifically, according to the character ID, the attack power information, the defense power information, and the health point information indicated by the addition information, the CPU 101 makes the monster appear in the game. More specifically, the CPU 101 places the monster at an appropriately determined position in a dungeon, which is a game stage, in advance. When the main character, who searches the dungeon, reaches the position where the monster is placed, the monster appears
on the display unit 11. Where the added monster is made to appear in the game in terms of its progress may be determined by the game program. The player of the game machine 10A operates the main character to battle against the monster, which has appeared additionally. Then, the game machine 10A sends to the server 30 a game result notice that includes game result information indicating the result of the battle. The game result information can include, in addition to information related to the outcome of the battle, information indicating the amount of damage given to (the reduction in health points caused in) the main character by the monster, and information indicating the amount of damage given to (the reduction in health points caused in) the monster by the main character. If addition information is not included, the CPU 101 executes a basic game process in which a monster is not added (S85).

[0080] When the server 30 receives the game result notice, the CPU 301 executes a game-result storage process (S99). Specifically, the CPU 301 stores the game result information in the addition table TBL.2 in association with the addition information corresponding to the monster which appeared additionally. More specifically, the CPU 301 updates the number of wins and losses according to information included in the game result information and also updates the ability information according to the attack power information, the defense power information, and the health point information obtained after the battle done by the monster which appeared additionally. The CPU 301 also stores the information indicating the amount of damage given to (the reduction in health points caused in) the main character by the monster, and the information indicating the amount of damage given to (the reduction in health points caused in) the monster by the main character, in an accumulating manner.

[0081] Then, the CPU 301 executes an end determination process (S10) for determining whether an end condition is satisfied, which ends the addition of the monster to the game machine 10A installed in the game arcade specified by the user. The end condition is, for example, whether the number of battles or the number of wins or losses in battles reaches a predetermined number, or whether the health points indicated by the health point information of the monster become zero. When the end condition is satisfied, the CPU 301 deletes from the addition table TBL.2 the corresponding addition information, the player ID, the information related to the amount of damage, and the management information.

[0082] Then, the CPU 301 controls the communication interface 304 so as to send a result notice to the user terminal 20. The result notice includes the number of wins, the number of losses, the information indicating the amount of damage given to (the reduction in health points caused in) the main character by the monster, and the information indicating the amount of damage given to (the reduction in health points caused in) the monster by the main character. The CPU 301 changes the ability indicated by the ability information of the added monster, according to information about the results of battles included in the result notice. In other words, the monster (character) owned by the user accumulates experience through battles in the battle game described above.

[0083] As described above, in the present embodiment, the user terminal 20 can receive game arcade information corresponding to the user of the user terminal 20 from the server 30, and can specify the game arcade where the game machine 10A in which a monster owned by the user is made to appear is installed when the user selects that game arcade from the game arcade information. Since the server 30 stores, in the addition table TBL.2, addition information indicating the monster to be added, in association with the selected game arcade information, and, when the server 30 receives a check request from a game machine 10A, asking whether addition information is provided, since the server 30 sends back a check acknowledgement that includes the addition information when the game machine 10A is a game machine 10A installed in the selected game arcade, the monster can be made to appear in the game machine 10A installed in the game arcade selected by the user. As a result, the game machine 10A in which the monster is made to appear is not limited to a game machine 10A installed in a game arcade that the user of the user terminal 20 visits. Even when the user does not visit game arcades, a monster owned by the user can be made to appear in a game machine 10A installed in the game arcade specified by the user.

[0084] Since the game arcade table TBL.1 stores each player ID in association with the related game arcade information indicating some game arcades related to the user among all the game arcades, those game arcades can be reported to the user of the user terminal 20. Therefore, when the user selects a game arcade where a game machine 10A in which a game element (a monster owned by the user) is made to appear is installed, from a great number of game arcades throughout the nation, the user need not use all the game arcades in the nation as selection candidates, making the selection of a game arcade easier.

[0085] When a monster owned by the user is made to appear in a game machine 10A, even if the user does not play the game on the user terminal 20, the monster can be nurtured, and the parameters indicated by the ability information of the monster can be improved. Especially in a role-playing game, since the ability of a monster (character) is improved as the monster accumulates experience, the ability of a monster in the game played with the user terminal can be improved by letting the monster accumulate experience in the game machine 10A which the user does not control.

[0086] In addition, according to the present embodiment, since the server 30 manages the appearance of a monster (character) with the management information, an identical monster does not appear in a plurality of game machines 10A at the same time. Because a monster to be added to a game is exclusively controlled in this way, game results are prevented from being fed back from the plurality of game machines 10A for the appearance of the monster. Especially in a battle game, if a battle is lost, the number of remaining lives is usually reduced by 1, and when the number of remaining lives reaches zero, the game cannot be continued. If an identical monster is permitted to appear in each of the plurality of game machines 10A at the same time, the consistency of the number of remaining lives may be lost. In the above-described embodiment, however, since a monster is made to appear in a game machine 10A exclusively, such a problem can be eliminated.

2. Second Embodiment

[0087] Next, a game system 1B according to a second embodiment of the present invention will be described. FIG. 8 is a block diagram of the game system 1B. The game system 1B has the same configuration as the game system 1A of the first embodiment, shown in FIG. 1, except that game machines 103 are used instead of the game machines 10A and that a monster to be added is managed also by the game.
machines 10B in addition to the server 30. In particular, in the game system 1B, the addition table TBL 2 of the server 30 stores player IDs, addition information, selected game arcade information, and battle results in association with each other but does not store management information, whereas, in the game system 1A, the addition table TBL 2 of the server 30 stores player IDs, addition information, selected game arcade information, management information, and battle results in association with each other. Each of the game machines 10B includes a control unit 18 for controlling the whole of the game machine 10B, a storage unit 19a for storing various types of information, such as a game program and an addition table TBL 3, and also for functioning as a work area of the control unit 18, a communication unit 19b for communicating with the server 30 through the communication network NET, and a plurality of game terminals GE. The storage unit 19a can be formed, for example, of a ROM, a RAM, and a hard disk. A configuration can be employed in which the storage unit 19a is disposed in an external apparatus (such as an external server) different from the game machine 10B, and the game machine 10B sends and receives information to and from the storage unit 19a through the communication network NET. In other words, the storage unit 19a is not indispensable to the game machine 10B. The addition table TBL 3 stores at least addition information and management information in association with each other. The appearance of the game terminals GE is the same as the game machines 10A shown in FIG. 2. For example, six game terminals GE are connected to form a game machine 10B. The control unit 18 functions as a control center of the plurality of game terminals GE. When the addition table TBL 3 stores addition information, the monster to be added can be made to appear in any of the game terminals GE of the game machine 10B. Since management information indicating whether a monster appears or not is stored in the addition table TBL 3 of the game machine 10B instead of the server 30, the control unit 18 of the game machine 10B just needs to use the addition table TBL 3 to manage whether a monster appears in the plurality of game terminals GE of the game machine 10B. In other words, the game machine 10B no longer needs to ask the server 30, which is located outside the game arcade, to perform management, reducing the communication load.

FIGS. 9A and 9B are sequence charts showing the operation of the game system 1B of the second embodiment. The operation of the game system 1B is the same as in the first embodiment, described with reference to FIGS. 7A and 7B, from when the user terminal 20 sends an authentication request to the server 30 to when the server 30 executes an addition-information storage process (SS). A description thereof will be omitted.

After the CPU 301 of the server 30 executes the addition-information storage process (SS), the CPU 301 controls the communication interface 304 so as to send an addition request that includes addition information to a game machine 10B installed in the game arcade indicated by selected game arcade information. When a plurality of game machines 10B are installed in one game arcade, one of the game machines 10B is specified according to a predetermined rule and the addition request is sent to the specified game machine 10B. The predetermined rule can be any rule, but a lottery may be used or a predetermined order may be used. When two game machines 10B are installed in a game arcade B as shown in FIG. 8, for example, a first addition request may be sent to one of the game machines 10B, the next addition request may be sent to the other game machines 10B, and further addition requests may be sent alternately.

Next, when the game machine 10B receives the addition request, the control unit 18 of the game machine 10B executes an addition-information storage process (S20). More specifically, the control unit 18 stores the addition information in the addition table TBL 3 provided for the storage unit 19a. At that point in time, management information corresponding to the addition information indicates a non-appearance state. Then, the game machine 10B sends back to the server 30 an addition acknowledgement indicating that the addition information has been stored. When the server 30 receives the addition acknowledgement, the server 30 sends the addition acknowledgement to the user terminal 20.

Next, when a game is started in any of the plurality of game terminals GE of the game machine 10B (S21), the control unit 18 executes a determination process for determining whether a monster is to be added (S22). More specifically, the control unit 18 first references the addition table TBL 3 to determine whether addition information has been stored. Second, when addition information has been stored, the control unit 18 reads management information indicating an appearance state in which a monster now appears in any of the game terminals GE or a non-appearance state in which a monster now does not appear in any of the game terminals GE. Third, when addition information has not been stored in the addition table TBL 3, or when the management information indicates an appearance state, the control unit 18 determines that a monster is not to be added; in contrast, when addition information has been stored in the addition table TBL 3 and when the management information indicates a non-appearance state, the control unit 18 determines that a monster is to be added.

When the control unit 18 determines that a monster is not to be added, the control unit 18 executes a basic game process (S23), where a monster is not added to the game terminal GE in which the game was started. On the other hand, when the control unit 18 determines that a monster is to be added, the control unit 18 changes the management information from the non-appearance state to the appearance state and updates the storage content of the addition table TBL 3 (S24). Then, the control unit 18 executes an addition game process (S25). More specifically, the control unit 18 makes the monster appear in the game according to the character ID and the ability information indicated by the addition information. Where the monster is added in the game in terms of its progress is determined in advance by the game program as in the first embodiment. The player of the game terminal GE does battle against the monster that appeared additionally.

Next, the control unit 18 updates the storage content of the addition table according to the game result of the battle (S26). The contents to be updated can include, in addition to the number of wins and losses and the ability information of the monster that appeared additionally, information indicating the amount of damage given to (the reduction in health points caused in), the main character by the monster and information indicating the amount of damage given to (the reduction in health points caused in) the monster by the main character.

Then, the control unit 18 sends a game result notice that includes game result information indicating the result of the game to the server 30. The game result information includes the player ID of the player of the game terminal GE and the game result of the player of the game terminal GE, and
also includes the number of wins and losses against the monster that appeared additionally, the information indicating the amount of damage given to the main character by the monster, and the information indicating the amount of damage given to the monster by the main character.

When the server 30 receives the game result information, the CPU 301 executes a game-result storage process (S9). Specifically, the CPU 301 updates the content of information of the battle result against the main character in the addition table TBL 2 according to the number of wins and losses against the monster that appeared additionally, the information indicating the amount of damage given to (the reduction in health points caused in) the main character by the monster, and the information indicating the amount of damage given to (the reduction in health points caused in) the monster by the main character, all included in the game result information.

Then, the CPU 301 executes an end determination process (S10) for determining whether an end condition, which specifies the end of the addition of the monster, is satisfied. The end condition is, for example, whether the number of battles or the number of wins or losses in battles reaches a predetermined number, or whether the health points indicated by the health point information of the monster become zero. When the number of battles reaches a predetermined number (10, for example), or when the health points become zero, the addition of the monster ends. In that case, the CPU 301 sends a deletion request to the game machine 10B. The deletion request includes identification information identifying the addition information to be deleted.

When the game machine 10B receives the deletion request, the control unit 18 deletes the corresponding addition information and management information from the addition table TBL 3 (S27) and sends back, to the server 30, a deletion acknowledgement indicating that the addition information has been deleted. When the server 30 receives the deletion acknowledgement, the CPU 301 deletes the addition information from the addition table TBL 2 and sends a result notice to the user terminal 20. The result notice includes information of the battle results against the main character in the addition table TBL 2, that is, the number of wins and losses in the battle done by the monster of the user of the user terminal 20 and the main character of the game machine 10B, the information indicating the amount of damage given to (the reduction in health points caused in) the main character by the monster, and the information indicating the amount of damage given to (the reduction in health points caused in) the monster by the main character. The user terminal 20 updates the parameters indicating the ability information of the corresponding monster according to the received result notice. More specifically, the CPU 201 of the user terminal 20 performs control so as to increase the parameters indicating the ability information of the monster more when the number of wins of the monster in the battle against the main character of the game machine 10B is larger, or the amount of damage given to (the reduction in health points caused in) the main character by the monster is larger. In other words, the monster (character) owned by the user accumulates experience through the battle in the above-described battle game.

As described above, in the present embodiment, the user terminal 20 can receive game arcade information corresponding to the user of the user terminal 20 from the server 30 and can specify the game arcade where a game machine 10B in which a monster is made to appear is installed when the user selects that game arcade from the game arcade information. The server 30 sends addition information to a game machine 10B installed in the game arcade indicated by the selected game arcade information. Since the game machine 10B is provided with a plurality of game terminals G, and the monster is made to appear in a game when the storage unit 19a stores the addition information, the monster can be made to appear in the game machine 10B installed in the game arcade selected by the user. The ability information of the monster is updated according to the battle results between the monster made to appear in the game machine 10B and the main character of the player of the game machine 10B. As a result, the game machine 10B in which the monster is made to appear is not limited to a game machine 10B installed in a game arcade that the user of the user terminal 20 visits. Even when the user does not visit game arcades, a monster owned by the user can be made to appear in a game machine 10B installed in the game arcade specified by the user.

3. Modifications

The present invention is not limited to the above-described embodiments. The following modifications are possible, for example. Two or more of the following modifications can be appropriately combined.

1) In the above-described embodiments, a monster is made to appear in a game played in the game machine 10A or 10B. In the present invention, any game element that does not appear in the basic game may be made to appear in the game played in the game machine 10A or 10B installed in the game arcade selected by the user. For example, the game element may be a message, a background screen, a dungeon, a puzzle, a sound effect, or music. In such a case, the addition table TBL 2 does not need to store the management information, which indicates the appearance state or the non-appearance state of a monster, or information of the battle results against the main character, in association with the addition information.

2) In the above-described embodiments, a monster, which is a game element, is made to appear in the game machine 10A or 10B installed in a game arcade selected by the user. The present invention is not limited to this configuration, and a plurality of game arcades may be selectable at the user terminal 20. In that case, the game machine 10A or 10B where a monster is made to appear cannot be exclusively controlled, but the monster, which the user of the user terminal 20 has nurtured, can be shown to many persons when the monster is made to appear in the game machines 10A or 10B installed in a great number of game arcades. In that case, it is preferable that the server 30 does not update the addition information depending on the battle results. It is not necessary to perform exclusive control when a game element to be added is a message such as “Happy birthday, Yousuke”, a background screen, a sound effect, a dungeon, a puzzle, or music.

3) In the above-described embodiments, the server 30 sends to the user terminal 20 the related game arcade information of the user of the user terminal 20 as game arcade information. The present invention is not limited to this configuration, and game arcade information of all game arcades may be sent to the user terminal 20. More specifically, the CPU 301 generates game arcade information for all the game arcades included in the all-game-arcade-table TBL 10 in the game-arcade-information generation process when a game arcade information request is received from the user terminal 20. A friend table that associates each user with other users having friendship with the user may be stored in the hard disk. More
specifically, the player ID of each user and the player ID of another user having friendship with the user may be associated with each other and stored in the friend table. When the server 30 receives a game arcade information request, the CPU 301 references the friend table to acquire the player ID of another user having friendship with the user. Then, the CPU 301 may reference the game arcade table TBL 1 to read the related game arcade information corresponding to the player ID, use the read related game arcade information as game arcade information, and send it to the user terminal 20. By doing so, the user can find out a game arcade that a friend of the user can visit. In the above-described configuration, not only a game arcade related to the user but also a game arcade related to another user having friendship with the user can be included in game arcades from which a selection is to be made. As a result, when a game element, such as a monster nurtured by the user, is made to appear in a game machine 10A or 103 installed in a game arcade that a friend of the user can visit, it is not necessary to select a game arcade where a game machine 10A or 10B in which the game element is made to appear is installed, among a great number of game arcades throughout the nation. Therefore, game arcade selection can be made easily.

(4) In addition, the user terminal 20 may generate designation information that designates some or all users having friendship with the user, include it in a game arcade information request, and send it to the server 30. When the communication interface 304 receives the game arcade information request, the CPU 301 of the server 30 may identify the user who sent the game arcade information request (identify the player ID), identify another user designated by the identified user and the designation information (identify the player ID), reference the game arcade table TBL 1 to read the related game arcade information related to the other user, and use the related game arcade information as the game arcade information.

[0100] In that case, not only a game arcade related to the user but also a game arcade related to another user having friendship with the user can be included in game arcades from which a selection is to be made. In addition, since the other user having friendship is designated at the user terminal, game arcades from which a selection is to be made can be easily narrowed down for a user having many friends. Since a specific friend can be designated to limit game arcades from which a selection is to be made, a game element, such as a monster nurtured by the user, can be shown to the specific friend when the specific friend visits the game arcade after being asked to come.

(5) In the above-described embodiments, when the user terminal 20 executes the program for a game for nurturing a character such as a monster, downloaded from the server 30, the user can play the game. The user terminal 20 may execute a nurturing game in the form of a browser game. In that case, monster data is managed by the server 30. The user terminal 20 just browses a web page provided by the server 30, and the nurturing state of the monster is managed by the server 30. More specifically, the server 30 sends a list of monsters owned by the user to the user terminal 20; the user designates a monster to be used in a nurturing game played with the user terminal 20, from the list; and the nurturing game is executed with the designated monster.

[0101] In the first and second embodiments, the user terminal 20 executes the addition-information generation process S4 to send an addition request that includes addition information to the server 30 in the process where the nurtured monster is made to appear in a game machine 10A or 103 installed in an actual game arcade. In the current modification, since the user terminal 20 executes the browser game, the user terminal 20 does not store information about the monster. Therefore, processes for making the monster appear in a game machine 10A or 103 of the designated game arcade are executed in a sequence shown in FIG. 10.

[0102] The processes are the same as in the first embodiment shown in FIG. 7A, up to the game arcade selection process S3. The user terminal 20 displays the names of game arcades which the user can select, on the display unit 205. When the user operates the operation unit 206 to select the name of a game arcade in which a monster is to be made to appear, the CPU 201 generates selected game arcade information corresponding to the selected game arcade name. The selected game arcade information may be information that directly indicates the game arcade selected by the user, or information that indirectly indicates the game arcade selected by the user. The information that directly indicates the game arcade selected by the user is, for example, the game arcade ID identifying the game arcade. The information that indirectly indicates the game arcade selected by the user is, for example, index information identifying a choice selected by the user from a plurality of choices provided by the server, or a URL that includes the index information. More specifically, the plurality of game arcade names and selection buttons corresponding to the game arcade names are displayed at the user terminal; and when the user presses a selection button, the index information assigned to the selection button or a URL that includes the index information is generated as the selected game arcade information. Then, the CPU 201 sends a game arcade designation request that includes the selected game arcade information to the server 30. Since the index information and game arcade ID pair corresponding to each selection button included in the screen is specified in advance when the screen information displayed on the user terminal 20 is generated, when the server 30 acquires the index information from the user terminal 20, the server 30 can recognize the game arcade selected by the user.

[0103] When the server 30 receives the game arcade designation request, the CPU 301 stores the selected game arcade information in the RAM 302 and then executes a monster list generation process S30. More specifically, the CPU 301 acquires information related to monsters corresponding to the player ID and sends a web page that indicates the names and ability information of the monsters to the user terminal 20 as a monster list notice.

[0104] When the user terminal 20 receives the monster list notice, the user terminal 20 displays the monsters, which are managed by the user, and their ability information on the display unit 205. Then, the CPU 201 executes a monster designation process S31. Specifically, when the user operates the operation unit 206 to select a monster, the CPU 201 generates information that designates the selected monster. Then, the CPU 201 sends an addition request that includes the information that designates the selected monster to the server 30.

[0105] When the server 30 receives the addition request, the server 30 executes an addition-information storage process S32. The CPU 301 stores, in the addition table TBL 2, addition information related to the information that designates the selected monster, included in the addition request, in association with the player ID. Then, the CPU 301 generates a web page that reports to the user that the addition of the monster...
has been completed and sends an addition acknowledgement that includes the web page to the user terminal 20.

[0106] When the user has nurtured only one monster, it is not necessary for the user terminal 20 to designate a monster to be made to appear by the user. Therefore, the monster list generation process S30, the monster list notice, and the monster designation process S31 are omitted.

[0107] In a browser game, the result should be known when the user logs in to the server 30. Therefore, the result notice described with reference to FIGS. 7A and 7B and FIGS. 9A and 9B is not necessarily required.

[0108] In the configuration of the current modification, the addition information is managed by the server 30, and the user terminal 20 does not have the addition information. Therefore, the addition information is prevented from being forged in an unauthorized manner.

(6) In the first embodiment and the modifications, described above, the CPU 301 of the server 30 updates the management information from the non-appearance state to the appearance state when the communication interface 304 receives the result notice from the game machine 10A. The present invention is not limited to this configuration. For example, the CPU 301 may measure with, for example, a timer the time from when the management information is updated from the non-appearance state to the appearance state, and when the measured time reaches a predetermined time, the CPU 301 may change the management information from the appearance state to the non-appearance state. In that case, even if the game machine 10A is out of order, the management information can be returned to the non-appearance state when the predetermined time elapses.

[0109] Also in the game machines 10B of the second embodiment, the control unit 18 updates the management information from the non-appearance state to the appearance state when the game result notice is received from the game terminal GE. The present invention is not limited to this configuration. The control unit 18 may measure with, for example, a timer the time from when the management information is updated from the non-appearance state to the appearance state, and when the measured time reaches a predetermined time, the management information may be changed from the appearance state to the non-appearance state. In that case, even if the game terminal GE is out of order, the management information can be returned to the non-appearance state when the predetermined time elapses.

1. A game system comprising:
   a user terminal operated by a user;
   game machines installed at a plurality of game arcades; and
   a server capable of communicating with the user terminal and each of the game machines;
   the user terminal
   sending to the server a game arcade information request
   requesting to send game arcade information indicating
   one or a plurality of game arcades that the user of
   the user terminal can select;
   receiving from the server a game arcade information
   acknowledgement that includes the game arcade
   information; and
   sending to the server an addition request that includes
   selected game arcade information indicating a game
   arcade selected by the user from the one or the plu-
   rality of game arcades indicated by the received game
   arcade information, and that includes addition infor-
   mation indicating a game element to be added to and
   made to appear in a game executed in a game machine
   installed at the game arcade indicated by the selected
   game arcade information;

the server
   generating the game arcade information and sending
   back to the user terminal the game arcade informa-
   tion acknowledgement that includes the game arcade
   information, when receiving the game arcade infor-
   mation request from the user terminal;
   storing the selected game arcade information and the
   addition information included in the addition request,
   in association with each other, when receiving the
   addition request from the user terminal;
   determining, when receiving from the game machine a
   check request that includes game-arcade identifying
   information indicating the game arcade at which the
   game machine is installed, whether the game arcade
   identified with the game-arcade identifying informa-
   tion is included in the game arcade indicated by the
   selected game arcade information stored in association
   with the addition information; and
   sending back to the game machine, when the game
   arcade identified with the game-arcade identifying
   information is included in the game arcade indicated
   by the selected game arcade information, a check
   acknowledgement that includes the addition informa-
   tion stored in association with the selected game
   arcade information; and

the game machine
   executing the game;
   sending the check request to the server; and
   making the game element indicated by the addition
   information appear in the game if the check acknowl-
   edge ment includes the addition information, when
   receiving the check acknowledgement.

2. A game system comprising:
   a user terminal operated by a user;
   game machines installed at a plurality of game arcades; and
   a server capable of communicating with the user terminal and each of the game machines;
   the user terminal
   sending to the server a game arcade information request
   requesting to send game arcade information indicating
   one or a plurality of game arcades that the user of
   the user terminal can select;
   receiving from the server a game arcade information
   acknowledgement that includes the game arcade
   information; and
   sending to the server the selected game arcade information
   indicating a game arcade selected by the user from the
   one or the plurality of game arcades indicated by the
   received game arcade information;

the server
   generating the game arcade information and sending
   back to the user terminal the game arcade informa-
   tion acknowledgement that includes the game arcade
   information, when receiving the game arcade infor-
   mation request from the user terminal;
   storing addition information indicating a game element
   to be added to and made to appear in a game executed
   in a game machine installed at the game arcade
   indicated by the selected game arcade information, and
   the selected game arcade information, in association
with each other, when receiving the selected game arcade information from the user terminal;
determining, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and
sending back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information; and
the game machine
executing the game;
sending the check request to the server; and
making the game element indicated by the addition information appear in the game if the check acknowledgement includes the addition information, when receiving the check acknowledgement.

3. A game system comprising:
a user terminal operated by a user;
game machines installed at a plurality of game arcades; and
a server capable of communicating with the user terminal and each of the game machines;
the user terminal
sending to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select;
receiving from the server a game arcade information acknowledgement that includes the game arcade information; and
sending to the server an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information;

the server
generating the game arcade information and sending back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal;
storing the selected game arcade information and the addition information included in the addition request, in association with each other, when receiving the addition request from the user terminal; and
sending the addition information to the game machine installed at the game arcade indicated by the selected game arcade information; and
the game machine comprising:
a plurality of game terminals; and
a control unit that stores the addition information in a storage unit when receiving the addition information, executes the game in each of the plurality of game terminals, and makes the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit.

4. A game system comprising:
a user terminal operated by a user;
game machines installed at a plurality of game arcades; and
a server capable of communicating with the user terminal and each of the game machines;
the user terminal
sending to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select;
receiving from the server a game arcade information acknowledgement that includes the game arcade information; and
sending selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information;
the server
generating the game arcade information and sending back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal;
storing addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal; and
sending the addition information stored in association with the selected game arcade information to the game machine installed at the game arcade indicated by the selected game arcade information; and
the game machine comprising:
a plurality of game terminals; and
a control unit that stores the addition information in a storage unit when receiving the addition information, executes the game in each of the plurality of game terminals, and makes the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit.

5. A server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising:
a communication unit for communicating with the user terminal and each of the game machines; and
a control unit;
the control unit
generating, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and controlling the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information;
storing, when the communication unit receives from the user terminal an addition request that includes
selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, the selected game arcade information and the addition information included in the addition request, in association with each other in a storage unit;

referencing, when the communication unit receives from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, the storage content of the storage unit and determining whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and

controlling the communication unit to send back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

7. A server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising:

a communication unit for communicating with the user terminal and each of the game machines; and

a control unit;

generating, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information;

storing, when the communication unit receives from the user terminal an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, the selected game arcade information and the addition information included in the addition request in association with each other in a storage unit; and

controlling the communication unit to send the addition information to the game machine installed at the game arcade indicated by the selected game arcade information.

6. A server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising:

a communication unit for communicating with the user terminal and each of the game machines; and

a control unit;

generating, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and controlling the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information;

storing, when the communication unit receives from the user terminal selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other in a storage unit;

referencing, when the communication unit receives from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, the storage content of the storage unit and determining whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information; and

controlling the communication unit to send back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.
The server according to claim 5, wherein the storage unit stores, for each user, related game arcade information indicating some game arcades to which the user is related among all of the game arcades; and the control unit identifies a user who sent the game arcade information request when the communication unit receives the game arcade information request, and references the storage content of the storage unit, reads related game arcade information corresponding to the identified user, and uses the related game arcade information as the game arcade information.

10. The server according to claim 5, wherein the storage unit stores, for each user, related game arcade information indicating some game arcades to which the user is related among all of the game arcades; and the control unit identifies a user who sent the game arcade information request when the communication unit receives the game arcade information request, identifies another user who has friendship with the identified user, and references the storage content of the storage unit, reads related game arcade information corresponding to the identified user and related game arcade information corresponding to the other user, and uses the related game arcade information corresponding to the identified user and the related game arcade information corresponding to the other user as the game arcade information.

11. The server according to claim 5, wherein the game arcade information request includes designation information designating some or all of other users who have friendship with the user, the storage unit stores, for each user, related game arcade information indicating some game arcades to which the user is related among all of the game arcades; and the control unit identifies a user who sent the game arcade information request when the communication unit receives the game arcade information request, identifies another user designated by the identified user and the designation information, and references the storage content of the storage unit, reads related game arcade information corresponding to the other user, and uses the related game arcade information as the game arcade information.

12. The server according to claim 5, wherein the game element is a character specified by the user, and the addition information includes character information designating the character.

13. The server according to claim 12, wherein the character information includes ability information indicating the level of ability of the character, the storage unit stores the character information in association with the user; and the control unit updates, when the communication unit receives from the game machine a result notice that includes result information indicating a change in the ability of the character based on an action result of the character that appeared in the game, the ability information stored in the storage unit according to the result information.

14. The server according to claim 13, wherein the game is a battle game in which a character of a player of the game machine fights against another character; the other character includes the character specified by the user of the user terminal, which appears in the game of the game machine according to the addition information; and the result information indicates a change in the ability of the character specified by the user of the user terminal according to a result of a battle between the character of the player of the game machine and the character specified by the user of the user terminal.

15. The server according to claim 13, wherein the storage unit stores management information indicating an appearance state in which the character appears in any of the game machines or a non-appearance state in which the character does not appear in any of the game machines, in association with the character information; and the control unit reads the management information stored in the storage unit when the communication unit receives the check request, controls the communication unit to send back to the game machine a check acknowledgement that includes the addition information and updates the management information to the appearance state, when the read management information indicates the non-appearance state; controls the communication unit to send back to the game machine a check acknowledgement that does not include the addition information and that indicates that the character appears, when the read management information indicates the appearance state, and updates the management information to the non-appearance state when the communication unit receives the result notice from the game machine.

16. The server according to claim 15, wherein the control unit measures time that elapsed from when the management information is updated to the appearance state, and updates the management information to the non-appearance state when the measured time reaches a predetermined time.

17. A control method for a game system comprising a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines, the control method comprising: sending to the server a game arcade information request requesting to send game arcade information indicating
one or a plurality of game arcades that the user of the user terminal can select, performed by the user terminal; receiving from the server a game arcade information acknowledgement that includes the game arcade information, performed by the user terminal; sending to the server an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, performed by the user terminal; generating the game arcade information and sending back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal, performed by the server; storing the selected game arcade information and the addition information included in the addition request, in association with each other, when receiving the addition request from the user terminal, performed by the server; determining, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information, performed by the server; sending back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information, performed by the server; executing the game, performed by the game machine; sending the check request to the server, performed by the game machine; and making the game element indicated by the addition information appear in the game if the check acknowledgement includes the addition information, when receiving the check acknowledgement, performed by the game machine.

18. A control method for a game system comprising a user terminal operated by a user, game machines installed at a plurality of game arcades, and a server capable of communicating with the user terminal and each of the game machines, the control method comprising:

- sending to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, performed by the user terminal;
- receiving from the server a game arcade information acknowledgement that includes the game arcade information, performed by the user terminal;
- sending to the server selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information, performed by the user terminal;
- generating the game arcade information and sending back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal, performed by the server;
- storing addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal, performed by the server;
- determining, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information, performed by the server;
- sending back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information, performed by the server;
- executing the game, performed by the game machine; and
- making the game element indicated by the addition information appear in the game if the check acknowledgement includes the addition information, when receiving the check acknowledgement, performed by the game machine.

19. A control method for a game system comprising a user terminal operated by a user, game machines installed at a plurality of game arcades, each of the game machines comprising a plurality of game terminals, and a server capable of communicating with the user terminal and each of the game machines, the control method comprising:

- sending to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, performed by the user terminal;
- receiving from the server a game arcade information acknowledgement that includes the game arcade information, performed by the user terminal;
- sending to the server an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, performed by the user terminal;
- generating the game arcade information and sending back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal, performed by the server;
association with each other, when receiving the addition request from the user terminal, performed by the server; sending the addition information to the game machine installed at the game arcade indicated by the selected game arcade information, performed by the server; storing the addition information in a storage unit when receiving the addition information, performed by the game machine; executing the game in each of the plurality of game terminals, performed by the game machine; and making the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit, performed by the game machine.

20. A control method for a game system comprising a user terminal operated by a user, game machines installed at a plurality of game arcades, each of the game machines comprising a plurality of game terminals, and a server capable of communicating with the user terminal and each of the game machines, the control method comprising:

sending to the server a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, performed by the user terminal; receiving from the server a game arcade information acknowledgement that includes the game arcade information, performed by the user terminal; sending selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the received game arcade information, performed by the user terminal; generating the game arcade information and sending back to the user terminal the game arcade information acknowledgement that includes the game arcade information, when receiving the game arcade information request from the user terminal, performed by the server; storing addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other, when receiving the selected game arcade information from the user terminal, performed by the server; sending the addition information stored in association with the selected game arcade information to the game machine installed at the game arcade indicated by the selected game arcade information, performed by the server; storing the addition information in a storage unit when receiving the addition information, performed by the game machine; executing the game in each of the plurality of game terminals, performed by the game machine; and making the game element indicated by the addition information appear in the game when the addition information is stored in the storage unit, performed by the game machine.

21. A control method for a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server capable of communicating with the user terminal and each of the game machines, the control method comprising:

generating, when receiving from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and sending back to the user terminal a game arcade information acknowledgement that includes the game arcade information;
storing, when receiving from the user terminal an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, the selected game arcade information and the addition information included in the addition request in association with each other in a storage unit;

referencing, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, the storage content of the storage unit and determining whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and

sending back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

22. A control method for a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server capable of communicating with the user terminal and each of the game machines, the control method comprising:

generating, when receiving from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and sending back to the user terminal a game arcade information acknowledgement that includes the game arcade information;
storing, when receiving from the user terminal selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other in a storage unit;

referencing, when receiving from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, the storage content of the storage unit and determining whether the game arcade identified with the game-arcade identifying information
is included in the game arcade indicated by the selected game arcade information; and
sending back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

23. A control method for a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server capable of communicating with the user terminal and each of the game machines, the control method comprising:
generating, when receiving from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and sending back to the user terminal a game arcade information acknowledgement that includes the game arcade information;

storing, when receiving from the user terminal an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, the selected game arcade information and the addition information included in the addition request in association with each other in a storage unit; and

sending the addition information to the game machine installed at the game arcade indicated by the selected game arcade information.

24. A control method for a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server capable of communicating with the user terminal and each of the game machines, the control method comprising:
generating, when receiving from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and sending back to the user terminal a game arcade information acknowledgement that includes the game arcade information;

storing, when receiving from the user terminal selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other in a storage unit; and

sending the addition information to the game machine installed at the game arcade indicated by the selected game arcade information.

25. A non-transitory storage medium having stored thereon a computer program for causing a computer to function as a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising a communication unit for communicating with the user terminal and each of the game machines, and a control unit, the computer program causing the control unit
to generate, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and to control the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information;
to store, when the communication unit receives from the user terminal an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, the selected game arcade information and the addition information included in the addition request in association with each other in a storage unit;
to reference, when the communication unit receives from the user terminal a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, the storage content of the storage unit and to determine whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information stored in association with the addition information; and
to control the communication unit to send back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

26. A non-transitory storage medium having stored thereon a computer program for causing a computer to function as a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising a communication unit for communicating with the user terminal and each of the game machines, and a control unit, the computer program causing the control unit
to generate, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and to control the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information;
to store, when the communication unit receives from the user terminal selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, addition information indicating a game element to be added to and made to appear in a
game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other in a storage unit; to reference, when the communication unit receives from the game machine a check request that includes game-arcade identifying information indicating the game arcade at which the game machine is installed, the storage content of the storage unit and to determine whether the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, and to control the communication unit to send back to the game machine, when the game arcade identified with the game-arcade identifying information is included in the game arcade indicated by the selected game arcade information, a check acknowledgement that includes the addition information stored in association with the selected game arcade information.

27. A non-transitory storage medium having stored thereon a computer program for causing a computer to function as a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising a communication unit for communicating with the user terminal and each of the game machines, and a control unit, the computer program causing the control unit to generate, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and to control the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information; to store, when the communication unit receives from the user terminal an addition request that includes selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, and that includes addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, the selected game arcade information and the addition information included in the addition request in association with each other in a storage unit; and to control the communication unit to send the addition information to the game machine installed at the game arcade indicated by the selected game arcade information.

28. A non-transitory storage medium having stored thereon a computer program for causing a computer to function as a server used in a game system provided with a user terminal operated by a user and game machines installed at a plurality of game arcades and used to execute games, the server comprising a communication unit for communicating with the user terminal and each of the game machines, and a control unit, the computer program causing the control unit to generate, when the communication unit receives from the user terminal a game arcade information request requesting to send game arcade information indicating one or a plurality of game arcades that the user of the user terminal can select, the game arcade information and to control the communication unit to send back to the user terminal a game arcade information acknowledgement that includes the game arcade information; to store, when the communication unit receives from the user terminal selected game arcade information indicating a game arcade selected by the user from the one or the plurality of game arcades indicated by the game arcade information, addition information indicating a game element to be added to and made to appear in a game executed in a game machine installed at the game arcade indicated by the selected game arcade information, and the selected game arcade information, in association with each other in a storage unit; and to control the communication unit to send the addition information to the game machine installed at the game arcade indicated by the selected game arcade information.