DESCRIPTION

Title of the Invention

PORTAL SITE USE RECORD COLLECTION SYSTEM

Technical Field

[0001]

The present invention relates to a portal site that includes links relating to use of various applications, content, services, and the like, and especially relates to a portal site use record collection system that calculates a charge when using an application, content, or a service provided on a portal site according to a use record.

Background Art

[0002]

Services available to users via a network have diversified in recent years. For example, a portal site is known to, in the case of using various applications or content such as electronic books, music, and movies or various services such as accommodation reservations on websites, provide these applications, content, and services together to users. Patent Document 1 as an example proposes a portal site provision apparatus that is connected with server apparatuses of a plurality of vendors for providing applications and is also connectable with a client apparatus of a user. The portal site provision apparatus operates as follows. Once the user has obtained authentication as a procedure for using the portal site, when the user uses an application from the portal site, the authentication data of the user is transmitted from the portal site to a vender that provides the application. This is a system that, once the user has completed the use procedure with the portal system, allows individual use procedures for applications provided on the portal site to be omitted.

[0003]

As described in Patent Document 2, the following application execution

system is also known. A personal computer of a user is connected to an application service provider (ASP) via a network such as the Internet. An accessible period is set for each application of evaluation version so that there is no charge within a trial period and, only when the user wants to use the application even after the trial period, the user is authorized to use the application by paying a license fee for the product version.

Citation List

Patent Documents

[0004]

Patent Document 1: Japanese Patent Application Laid-Open No. 2002-175436

Patent Document 2: Japanese Patent Application Laid-Open No. 2007-286899

Patent Document 3: Japanese Patent No. 3679760

Summary of the Invention

Problem to be Solved by the Invention

[0005]

In the portal site provision apparatus described in Patent Document 1, for example, charging is a prerequisite in the case of using a paid application. However, even in the case where, after starting using the application, the user decides the application is unnecessary and stops using it halfway, a normal charge could be incurred.

[0006]

In the application execution system described in Patent Document 2, the accessible period is set for the evaluation version so that there is no charge within the trial period. Only when the user wants to use the application even after the trial period, the user is authorized to use the application by paying the license fee for the

product version. Thus, no charge is required during initial use. For example regarding paid content such as a movie or music, however, the user inevitably needs to select whether or not to use the content in the middle of viewing. This complicates the operation. Besides, typically the evaluation version of the application is partially limited in functions, which is not convenient for the user.

[0007]

As described in Patent Document 3 as an example, a system of determining the amount of payment for the user according to the amount of use by the user is also known. In Patent Document 3, an image forming apparatus in which a program for controlling the processes of, for example, a combination machine integrating scanner, printer, copy, and fax functions is installed includes use amount management means for managing the use amount for each program using a counter. According to the control program in the image forming apparatus, for example, a predetermined operation which is a copy operation using an image processing application is counted and managed as the use amount, and the data is transmitted to an application vendor via a network so that the user is notified of the charge corresponding to the use amount of the application. However, this cannot be easily applied to the above-mentioned portal site that includes links relating to use of various applications, content, and services. Especially in the case where the portal site provides not only paid applications, content, and services for which the user pays use fees but also free applications, content, and services, the charging process when using an application, content, or a service provided on the portal site is complex.

[0008]

The present invention accordingly has an object of providing a portal site use record collection system that enables use of various paid and free applications, content, services, and the like and enhances convenience by simplifying a procedure including a charging process when using an application, content, or a service on a portal site.

Means for solving the Problems

[0009]

To solve the problem stated above, a portal site system according to the present invention employs the following structure.

[0010]

A portal site use record collection system according to the present invention is a portal site use record collection system for a portal site that is connectable with servers of a plurality of vendors for providing a plurality of applications, content, services, and the like and a client terminal of a user via a network, the portal site use record collection system including a record collection system for collecting, as a log, a use history of the client terminal transmitted from a vendor that provides an application, content, or service used by the user, to collect use record information based on the log, wherein the record collection system includes a use record database (DB) for recording a quantified use record, and summarizes points generated as a result of the quantification and calculates a fee for the vendor.

[0011]

The portal site use record collection system according to the present invention includes: a log conversion unit for defining a rule for converting, according to use function, the log transmitted from the vendor that provides the application, content, or service, and standardizing the log according to the conversion rule; a weighting unit for setting an evaluation basis when calculating the points as the fee; and a use record storage unit for summarizing the points evaluated by the weighting unit.

[0012]

In the portal site use record collection system according to the present invention, the portal site includes an application, content, or service for which a use fee (incentive) according to the use record is paid and an application, content, or service for which a result reward (affiliate) is obtained according to the use record, and the log conversion unit classifies the log as incentive or affiliate and stores the

classified log in the use record DB.

Advantageous Effect of the Invention

[0013]

According to the present invention, the user who has contracted the portal site system is able to receive the plurality of applications, content, and services from the single portal site, which enhances the convenience of the user. Moreover, when any of various applications, content, and services provided on the portal site is used, the use record is converted to points by fair evaluation which does not differ between individuals, and the distribution amount or the recovery amount is calculated according to the points. Further, when the user stops the use halfway, the use record is reflected in the use fee.

Brief Description of the Drawings

[0014]

FIG. 1 is a schematic block diagram of an overall system including a portal site system representing an embodiment of the present invention.

FIG. 2 is a block diagram of the system at the beginning of service use in the embodiment of the present invention.

FIG. 3 is a flowchart showing a process at the beginning of service use in the embodiment of the present invention.

FIG. 4 is an explanatory diagram showing an example of a user information table in the embodiment of the present invention.

FIG. 5 is an explanatory diagram showing an example of a use procedure conversion rule table in the embodiment of the present invention.

FIG. 6 is a block diagram of the system at the time of service use in the embodiment of the present invention.

FIG. 7 is a flowchart showing a process at the time of service use in the embodiment of the present invention.

FIG. 8 is a block diagram of the system at the end of service use in the embodiment of the present invention.

FIG. 9 is a flowchart showing a process at the end of service use in the embodiment of the present invention.

FIG. 10 is a block diagram of a log standardization system in the embodiment of the present invention.

FIG. 11 is a flowchart showing a use record information process in the embodiment of the present invention.

FIG. 12A is an explanatory diagram showing an example of a book content log information table in the embodiment of the present invention.

FIG. 12B is an explanatory diagram showing an example of a reservation service log information table in the embodiment of the present invention.

FIG. 12C is an explanatory diagram showing an example of a provision information app log information table in the embodiment of the present invention.

FIG. 13 is an explanatory diagram showing an example of a log conversion information table in the embodiment of the present invention.

FIG. 14A is an explanatory diagram showing an example of a book content analysis log information table in the embodiment of the present invention.

FIG. 14B is an explanatory diagram showing an example of a reservation service analysis log information table in the embodiment of the present invention.

FIG. 14C is an explanatory diagram showing an example of a provision information app analysis log information table in the embodiment of the present invention.

FIG. 15 is an explanatory diagram showing an example of a weighting information table in the embodiment of the present invention.

FIG. 16 is a block diagram including a use record search system in the embodiment of the present invention.

FIG. 17 is a flowchart showing a use record confirmation process in the embodiment of the present invention.

FIG. 18 is a block diagram showing a fee distribution and recovery system in the embodiment of the present invention.

FIG. 19 is a flowchart showing a fee distribution and recovery process in the embodiment of the present invention.

FIG. 20 is an explanatory diagram showing an example of a use record table in the embodiment of the present invention.

FIG. 21 is an explanatory diagram showing an example of an analysis result table in the embodiment of the present invention.

FIG. 22 is an explanatory diagram showing an example of an amount conversion information table in the embodiment of the present invention.

FIG. 23 is an explanatory diagram showing an example of a recovery fee information table in the embodiment of the present invention.

FIG. 24 is an explanatory diagram showing an example of a distribution fee information table in the embodiment of the present invention.

FIG. 25 is a block diagram including a use record and fee search system in the embodiment of the present invention.

FIG. 26 is a flowchart showing a use record and fee reference process in the embodiment of the present invention.

Modes for carrying out the Invention

[0015]

The following describes an embodiment of a portal system according to the present invention based on drawings. FIG. 1 is a schematic block diagram of a portal system 1 according to the present invention. As shown in the drawing, the portal system 1 is connected with servers 2A, 2B, and 2C of a plurality of vendors and a client terminal 3 of a user via a network 4, and guides the user to applications, content, and services provided by the vendors. Each of the servers 2A, 2B, and 2C of the vendors stores a control program 5 corresponding to the application, content, or service provided by the vendor, and includes databases (hereafter referred to as

"DB") 6, 7, and 8 for storing user information, content information, and log information. Although the schematic block diagram in FIG. 1 shows only the specific structure of the application vendor and omits the specific structures of the content vendor and the service vendor, each of the content vendor and the service vendor equally includes a program for operating the content or service provided by the vendor and DBs (not shown) for storing user information, content information, and log information.

[0016]

The portal system 1 includes a web server 10, a DB server 11, and a record collection server 40. The web server 10 includes a portal server 10A. The DB server 11 includes a DB 21 for storing user information, a DB 22 for storing use procedure conversion rule information, a DB 23 for storing use record information, a DB 24 for storing amount conversion information, a DB 25 for storing weighting information, a DB 26 for storing use record analysis result information, a DB 27 for storing recovery fee information, a DB 28 for storing distribution fee information, a DB 29 for storing log conversion information, and a DB 30 for storing log-converted standard log information (the DBs 29 and 30 are shown in FIG. 10). The record collection server 40 includes a record collection system 41.

[0017]

The client terminal 3 of the user includes a typical personal computer, notebook-size personal computer, PDA, mobile phone, smartphone, tablet terminal, or the like. The client terminal 3 includes at least a communication function of transmitting information to the portal server 10A via the network 4, a display function such as a display of displaying information from the portal server 10A or each of the servers 2A, 2B, and 2C of the provision vendors, and an input function such as a keyboard, a pointing device, or a touch panel. The communication function, the display function, and the input function will be described later.

[0018]

A process at the beginning of service use is described below, with reference to a block diagram in FIG. 2 and a flowchart in FIG. 3. When a user information

transmission unit 31 (communication function) in the client terminal 3 of the user transmits user information at the beginning of service use (step S1), a user information registration unit 50 in the web server 10 registers the user information transmitted from the client terminal 3, in a user information table T stored in the user information DB 21 (step S2). FIG. 4 shows an example of the user information table T. The user information table T stores data including: a user code; a user name; a user address, age, OS used, and whether or not to use encryption as procedure information 1 to procedure information n; a belonging company name; a use state of each of service 1 to service n provided by the vendor; a user contract state; a deletion flag; a login date and time; a logout date and time; a terminal identification code; a login state; a use start date and time; and a use end date and time. The user information registration unit 50 determines the contract possibility for the user. For example, if the user is a corporate member, the user information registration unit 50 compares the information with corporate member information, to determine the belonging state of the user. The user information registration unit 50 also determines whether or not the use is limited, according to the past record, etc. (step S3). The user information registration unit 50 thus identifies the user (step S4). In the case where the user information registration unit 50 fails to identify the user, the user information registration unit 50 changes the user information table T and sets the deletion flag for the user (step S5). In the case where the user information registration unit 50 identifies the user in step S4, on the other hand, a use procedure conversion and transmission unit 51 converts the user information according to a rule defined in a use procedure conversion rule table 10T stored in the use procedure conversion rule DB 22 in the DB server 11, and transmits the converted user information to each of the servers 2A, 2B, and 2C of the provision vendors (step S6). The use procedure conversion rule table 10T stores information for defining a rule when performing a use procedure for each provision vendor. As an example, as shown in FIG. 5, the use procedure conversion rule table 10T stores data including: an application name (hereafter simply referred to as “app name”) provided by the

vendor; a conversion number indicating a conversion rule for the use procedure; user procedure information; a type attribute (character string or numeric); and the number of digits. Thus, the use procedure conversion and transmission unit 51 transmits the user information converted according to the use procedure conversion rule table 10T to each of the servers 2A, 2B, and 2C of the provision vendors, and a use procedure processing unit 60 in each of the servers 2A, 2B, and 2C registers the user information in the user information DB 6 in the server (step S7). The use procedure processing unit 60 in each of the servers 2A, 2B, and 2C also transmits the user information registered in the user information DB 6 to a user authentication unit 52 in the web server 10, to set a use flag in the user information DB 21 in the DB server 11 (step S8). The user authentication unit 52 transmits a registration completion notification to the client terminal 3 of the user. A user authentication result display unit 32 (display function) in the client terminal 3 of the user displays the registration completion notification (step S9).

[0019]

Once the user has contracted the portal site in the above-mentioned manner, the user is able to receive various applications, content, and services provided on the portal site. A process at the time of such service use is described below, mainly with reference to a block diagram in FIG. 6 and a flowchart in FIG. 7. When the user information transmission unit 31 in the client terminal 3 of the user transmits the user information to the portal site at the time of service use (step S10), a user specifying unit 53 searches the user information table T in the user information DB 21 to specify the user, and acquires the information of the service contracted by the user (step S11). The use procedure conversion and transmission unit 51 transmits the user information converted according to the use procedure conversion rule table 10T stored in the use procedure conversion rule DB 22, to the use procedure processing unit 60 in each of the servers 2A, 2B, and 2C of the provision vendors (step S12). The use procedure processing unit 60 searches the user information table T in the user information DB 6 of the vendor for the corresponding

user information, extracts apps, content, or services available to the user, and determines the use possibility (step S13). The use procedure processing unit 60 transmits the information of the available apps to the user authentication unit 52 in the web server 10. The user authentication unit 52 outputs the available app/service names to a result display unit 35 in the user client terminal 3, to notify the user (step S14). The user selects a desired app, content, or service and starts the use by operating an operation input unit 34 (step S15). The operation input unit 34 outputs the information to a function processing unit 61 in the provision vendor. The function processing unit 61 executes a process according to a program of the app, content, or service, and transmits the corresponding log to a use record reception unit 55 in the web server 10 as use information (step S16). The use record reception unit 55 receives the use record, and receives the use information converted according to the use procedure conversion rule table 10T (step S17). The use record reception unit 55 registers it in the use record information DB 23 (step S18). The function processing unit 61 determines the type, i.e. determines which type is selected by the user from the apps, content, and services provided by the vendors (step S19). In the case where the user selects an app, the function processing unit 61 transmits the execution result of the app (step S20), and the result display unit 35 in the user client terminal 3 displays the app processing result (step S21). In the case where the user selects a service, the function processing unit 61 transmits the service reception result (step S22), and the result display unit 35 in the user client terminal 3 displays the service processing result (step S21). In addition, a service reception unit 71 in the vendor terminal 70 receives the operation input from the user client terminal 3 as a service (step S23), and a service result transmission unit 72 transmits the service execution result (step S24). The result display unit 35 in the user client terminal 3 displays the service provision result (step S25).

[0020]

A process at the end of service use is described next, with reference to a block diagram in FIG. 8 and a flowchart in FIG. 9. When the user information is input

from the client terminal 3 of the user (step S30) and the user information transmission unit 31 transmits the user information to the web server 10 at the end of service use, the user specifying unit 53 searches the user information table T in the user information DB 21 using the user information to specify the user, and acquires the information of the service contracted by the user (step S31). The use procedure conversion and transmission unit 51 performs an end procedure with the vendor, according to the conversion rule in the use procedure conversion rule table 10T (step S32). The use procedure processing unit 60 in the vendor deletes the user information from the user information DB 6 in the vendor (step S33). The user authentication unit 52 in the portal site deletes the corresponding service from the user information table T in the user information DB 21 of the portal site (step S34), and changes the user information table T and sets the deletion flag (step S35). The user authentication result display unit 32 in the user client terminal 3 displays the deletion completion (step S36).

[0021]

The following describes the record collection system 41. The record collection system 41 is a system for analyzing logs from the provision vendors and quantifies the user's use records as points.

[0022]

When the user uses an app, content, or a service, a log storage unit 8A in each of the servers 2A, 2B, and 2C stores a log in the log information DB 8 as use history. Such logs are different for each vendor, and also different depending on type such as apps, content, or services provided by the vendors. Hence, the record collection system 41 converts each log transmitted from a log transmission unit 8B in each of the servers 2A, 2B, and 2C of the vendors in unified format to standardize it, and then analyzes the log and quantifies the use record of the user as points. A process for standardizing a log is described below. As shown in a block diagram in FIG. 10, the record collection system 41 includes a log reception unit 80, a log conversion unit 81, a log type analysis unit 82, a weighting unit 83, and a use record

storage unit 84. Each use log stored in the log storage unit 8A in the DB 8 of each vendor is transmitted from the log transmission unit 8B to the log reception unit 80 in the record collection system 41. After the standardization by the log conversion unit 81, the use record is quantified as points, and stored in the use record information DB 23. This process is described below, with reference to a flowchart in FIG. 11.

[0023]

For example, when the user uses an application, the corresponding operation history is left as a log. The log is stored in the log information DB 8 in the application server 2 as any of log information tables 20Ta to 20Tc shown in FIGS. 12A, 12B, and 12C (step S40), and the log transmission unit 8B transmits the log to the DB server 11 in the portal site (step S41). The log reception unit 80 in the record collection system 41 receives the log information transmitted to the DB server 11 (step S42). The log is converted in standard form based on log conversion information, and the resulting log information (standard) is stored in the log information DB 30. A rule used when standardizing the log is a conversion rule defined in a log conversion information table 30T shown in FIG. 13. The log conversion information table 30T defines a rule for classifying logs not unified among vendors or types of apps provided, according to use function. In detail, the portal site provides various applications, content, and services and, when the user uses a paid application, content, or service, the user pays a use fee to the provision vendor (incentive). On the other hand, regarding various free services such as guide services or reservation services, for example, when the user makes a reservation or buys a product via a link on the portal site, a result reward (affiliate) may be paid to the operator of the portal site. Accordingly, a rule for classifying each application, content, or service as incentive or affiliate is defined. As an example, as shown in FIG. 13, the log conversion information table 30T stores data including; an app name; a rule type; a record type (incentive or affiliate); a type (book name, reservation type, information type); a process (information type); and a use time (reference time). Log information summarized in the record collection system 41 is

converted according to the rule defined in the log conversion information table 30T, and the resulting log information (standard) is stored in the log information DB 30 in the DB server 11 (step S43). The log type analysis unit 82 analyzes the log standardized in this way (step S44), classifies the log according to type, e.g. book content such as an electronic book, a reservation service for travel, move, etc., and a provision app such as map search, game, sightseeing guide, or route search as shown in FIGS. 14A, 14B, and 14C, and stores it in any of analyzed log information tables 40Ta to 40Tc. Further, the weighting unit 83 performs weighting in order to calculate a distribution amount (incentive) or a recovery amount (affiliate) according to the use record (step S45), and the use record storage unit 84 stores it in the use record information DB 23 in the DB server 11.

[0024]

The weighting process is described in detail below. The portal site according to the present invention provides various applications, content, and services, and there is a need to calculate a distribution amount paid from the portal operator to the provision vendor as an incentive fee, or a recovery amount paid from the provision vendor to the portal operator for a free application, content, or service, according to the use record. In the present invention, the use record is quantified as points to calculate the distribution amount or the recovery amount. In the case of quantifying the use record as points, however, if the evaluation is based only on the use time, the use time for an electronic book or the like differs for each person even though the same number of pages are read. To quantify the use record as points by fair evaluation, a rule is defined for each application, content, or service, and stored in a weight information table 50T. As an example, as shown in FIG. 15, the weight information table 50T stores data including: an app name; an information type (e.g. electronic book, game, transfer guide, etc.); a process type (page reference or page change in the case of an electronic book, reference in the case of a game, search in the case of transfer guide, etc.); a service number; a weight value; and use time conversion. In FIG. 15, for example, a rule in the case where the user views a book

"Shanghai" as an electronic book about travel is defined as follows: the weight value is "2" when referencing a page, and the weight value is "1" when performing a page change. The user record is quantified as points according to such a rule, and the distribution amount or the recovery amount is calculated according to the points.

[0025]

The quantified use record can be also confirmed from the provision vendor side. In detail, as shown in FIG. 16, the vendor terminal 70 of each of the servers 2A, 2B, and 2C includes a use record search unit 73 and a use record display unit 74, and the record collection system 41 in the record collection server 40 includes a use record inquiry reception unit 101, a use record summarization unit 102, and a use record transmission unit 103. A process when confirming the use record is described below, with reference to a flowchart in FIG. 17. When a use record search condition is input to the use record search unit 73 in the vendor terminal 70, the use record search unit 73 transmits the search condition to the use record inquiry reception unit 101 in the record collection system 41 (steps S50, S51). The use record inquiry reception unit 101 collects the use record corresponding to the search condition from the use record information DB 23 in the DB server 11 (step S52). The use record transmission unit 103 transmits the collected use record information to the vendor terminal 70, and the use record display unit 74 in the vendor terminal 70 displays the quantified use record (steps S53, S54). Thus, the provision vendor can confirm the distribution amount paid from the portal operator to the provision vendor as an incentive or the recovery amount paid as an affiliate for a free application, content, or service according to the use record.

[0026]

In the present invention, a fixed charging system is employed when the user contracts with the portal site operator. When the user uses an application, content, or a service provided on the portal site, no charge is required. When the user uses a selected application, content, or service, a fee distribution amount (incentive) or a fee recovery amount (affiliate) is calculated according to the use record, and the portal

site operator performs a fee distribution or fee recovery process for each provision vendor. This fee distribution and recovery system is described below. As shown in FIG. 18, the record collection system 41 in the record collection server 40 includes an execution planning unit 88, a use record extraction unit 89, a recovery and distribution information analysis unit 90, a use record transmission unit 91, a record correction unit 92, a recovery calculation unit 93, a distribution calculation unit 99, and a use information and fee transmission unit 100. The use record information DB 23 in the DB server 11 stores a use record table 60T storing use record information shown in FIG. 20, and the use record analysis result DB 26 stores an analysis result table 70T shown in FIG. 21. The analysis result table 70T stores information about distribution (incentive) or recovery (affiliate) as a result of analyzing the use record table 60T. The amount conversion information DB 24, the recovery fee information DB 27, and the distribution fee information DB 28 store an amount conversion information table 80T, a recovery fee information table 90T, and a distribution fee information table 100T, respectively. The amount conversion information table 80T stores information for calculating the distribution amount or the recovery amount according to the use record of the application, content, service, or the like used by the user. As an example, as shown in FIG. 22, the amount conversion information table 80T stores data including: a type (distribution or recovery); points as a result of quantifying the use record; a conversion rate between points and a distribution amount or a recovery amount; a target year; and a target month. The analysis results converted according to the conversion rates in the amount conversion information table 80T are reflected in the recovery fee information table 90T and the distribution fee information table 100T shown in FIGS. 23 and 24. The vendor terminal 70 includes a record reference unit 73, a record approval unit 74, and a use information and fee display unit 75.

[0027]

A process for performing fee distribution or fee recovery for each provision vendor in the above-mentioned structure is described below, with reference to a

flowchart in FIG. 19. First, the execution planning unit 88 performs scheduling, and the use record extraction unit 89 extracts the use record within the scheduled period (steps S60, S61). In the use record extraction, the period is designated as the search condition so that the use record within the period can be extracted from use record information stored in the use record table 60T (see FIG. 20) in the use record information DB 23. The use record extraction unit 89 determines the type of the record (fee distribution or recovery) (step S62). In the case where the type is determined as distribution fee, the distribution calculation unit 99 calculates the distribution fee based on the conversion rate in the distribution fee information table 100T (step S63), and the use information and fee transmission unit 100 transmits the distribution fee to the vendor (step S64). In the case where the type is determined as recovery fee in step S62, the use record transmission unit 91 transmits the use record of the service to the vendor (step S65). The record reference unit 73 in the vendor references the use record of the service transmitted from the portal site operator, and the record approval unit 74 approves the use record (step S66). The record approval unit 74 transmits the approval result to the record correction unit 92 in the record collection server 40 (step S67). Upon receiving the approval result, the record correction unit 92 stores the service use as fee recovery, and also the recovery calculation unit 93 calculates the recovery fee (steps S68, S69). The use information and fee transmission unit 100 transmits the recovery fee to the vendor (step S64), thus completing the process.

[0028]

Moreover, as shown in FIG. 25, the vendor terminal 70 of each of the servers 2A, 2B, and 2C includes a use record and fee search unit 76 and a use record and fee display unit 77, and the record collection system 41 in the record collection server 40 includes a use information reception unit 110, a use information and fee extraction unit 111, and a use information and fee transmission unit 112. The vendor terminal 70 can then reference the use record and the corresponding fee in the record collection server 40 of the portal site. A process of referencing the use

record and the fee is described below, with reference to a flowchart in FIG. 26.

[0029]

When a use information and fee are input to the use record and fee search unit 76 in the vendor terminal 70 as a search condition and the use record and fee search unit 76 transmits the use information and fee to the use information reception unit 110 (step S70), the use information reception unit 110 in the record collection server 40 receives the search condition, and the use information and fee extraction unit 111 extracts the use record and the recovery fee or distribution fee corresponding to the search condition from the use record analysis result DB 26, the recovery fee information DB 27, and the distribution fee information DB 28 in the DB server 11 based on the search condition (steps S71, S72). The use information and fee transmission unit 112 transmits the extracted use record and recovery fee or distribution fee to the use record and fee display unit 77 in the vendor terminal 70 (step S73). The use record and fee display unit 77 in the vendor terminal 70 displays the use record and the corresponding fee (step S74). Thus, the provision vendor can confirm the distribution fee paid from the portal site operator to the provision vendor as an incentive or the recovery fee charged from the portal operator to the provision vendor as an affiliation fee for a free application, content, or service according to the use record.

[0030]

As described above, in the portal site system 1 according to the present invention, the user who has completed the use procedure and contracted the portal site system 1 is able to receive the plurality of applications, content, and services from the single portal site, with no need to perform an individual use procedure with each vendor. Moreover, the portal site operator executes the process of distribution (incentive) or recovery (affiliate) on each vendor according to the use record, so that there is no need to perform a charging procedure or a cancellation procedure individually for each vendor as long as the contract is in the form in which the user pays a fixed fee to the portal site system 1. Further, the use record of each of

various applications, content, and services provided on the portal site is quantified as points. This quantification of the use record as points is made by fair evaluation which does not differ between individuals, and the distribution amount or the recovery amount is calculated according to the points. Besides, when the user stops the use halfway, the use fee is calculated according to the use record. Such a portal site system is rational. For example, in the case where the portal site prepares a mobile terminal in which various overseas search services, reservation services, route guide, or overseas apps are packaged and employs the contract form of renting the mobile terminal to the user, upon overseas travel on business or pleasure the user does not need to search for such services abroad. The portal site system is therefore very convenient.

Description of Reference Numerals

[0031]

1	portal system
3	client terminal
4	Internet (network)
22	use procedure rule DB
23	use record DB
41	record collection system
80	log reception unit
81	log conversion unit
82	log type analysis unit
83	weighting unit
84	use record storage unit

CLAIMS

1. A portal site use record collection system for a portal site that is connectable with servers of a plurality of vendors for providing a plurality of applications, content, or services, and a client terminal of a user via a network,

wherein the portal site includes an application, content, or service for which a use fee is paid and an application, content, or service for which a result reward is obtained, the portal site employs a fixed charging system when the user contracts with the portal site, so that no charge is required when the user uses an application, content, or a service provided on the portal site, and the portal site comprises a record collection server which collects, as a log, a use history of the client terminal transmitted from the server of each vendor, and collects use record information based on the log,

the record collection server includes an execution planning unit which schedules a period for extracting the use record, a use record extraction unit which extracts the use record within the scheduled period, a recovery and distribution information analysis unit which determines a type of the record whether the use record is a use record with fee to be distributed or a use record with fee to be recovered, a distribution calculation unit which calculates a distribution fee based on a conversion rate in a distribution fee information table, a use record transmission unit which transmits the use record of the service to the server of each vendor, a recovery calculation unit which calculates a recovery fee, a use information and fee transmission unit which transmits the distribution fee or the recovery fee to the server of each vendor, and a use record DB which records the use record as points generated as a result of quantification,

the system is configured to, when a user transmits a user information from the client terminal at a beginning of service use of the user, register the user information transmitted from the client terminal to a user information DB of the portal site, and to transmit the user information to each server of the server of the vendor to

store the same as the user information in each server of the vendor,

the portal site system is configured to specify the user having accessed the portal site on the basis of the user information in the user information DB of the portal site system, and with the server of the vendor, to confirm a use possibility of the application, content, or service by the user information stored in the server of each vendor when the specified user selects the application, content or service provided by the portal site system, to execute use procedure processing between the user and the vendor, and to store the log as the use history as a log information of the server of each vendor, and

the use record collection system analyzes the log information transmitted from the server of each vendor, quantifies the use record of the user as points, stores the same in the use record information DB, calculates the fee distribution amount and the fee recovery amount according to the use record quantified as points, and performs a fee distribution and fee recovery process for the server of each vendor.

2. The portal site use record collection system according to claim 1, comprising:

a log conversion unit which defines a rule for converting, according to use function, the log information transmitted from the vendor system of the application, content, or service, and which standardizes the log information according to the conversion rule, a use record DB which quantifies and records the points based on the standardized log information, and a weighting unit which sets an evaluation basis when calculating the points as the fee,

wherein the weighting unit includes a weight information table which sets a weight value for each application, content, or service, and which defines a rule for each application, content, or service, quantifies the use record as points according to the rule of the weight information table when the user uses any of the application, content, or service, calculates the distribution amount as the use fee or the recovery

amount as the result reward according to the point, and stores the same as the use record information, and

the portal site performs the fee distribution process and the fee recovery process to each vendor system based on the use record information.

3. A use record collecting method in a portal site using a portal site use record collection system that is connectable with servers of a plurality of vendors for providing a plurality of applications, content, or services, and a client terminal of a user via a network according to claim 1, the use record collecting method comprising the steps of:

(a) a step of recording, when a user transmits a user information from the client terminal to the portal site at a beginning of service use of the user, the user information to a user information DB of the portal site;

(b) a step of transmitting the user information registered in the user information DB to each server of the server of the vendor, and storing the same as the user information in the server of each vendor;

(c) a step of transmitting the user information from the client terminal of the user to the portal site at time of service use, and acquiring information of the service contracted by the user;

(d) a step by the server of the vendor of searching the registered user information, extracting applications, content, or services available to the user, confirming use possibility, executing a process according to each program, and transmitting the use record as a log to the portal site;

(e) a step of scheduling with an execution planning unit, and analyzing a use history of the user from the log of the use record transmitted from the server of the vendor within the scheduled period and extracting the use record with a record extracting unit;

(f) a step of determining a type of the record, whether the use record transmitted from the server of the vendor is a fee distribution or fee recovery;

(g) a step of quantifying, when the type of the reco0rd is determined as a distribution fee in step (f), the use record of the user as points, and calculating the distribution fee based on a conversion rate in a distribution fee information table and based on the use record quantified as points;

(h) a step of transmitting, when the type of the record is determined as a recovery fee in step (f), the use record of the service to each vendor with a use record transmission unit;

(i) a step by the server of each vendor of referencing the use record of the service transmitted from the portal site, obtaining approval of the transmitted use record, and transmitting an approval result;

(j) a step of storing a service use as fee recovery, and calculating the recovery fee with a recovery calculation unit; and

(k) a step of transmitting the distribution fee calculated in step (g) and the recovery fee calculated in step (j) to each vendor with a use information and fee transmission unit.