Appeal decision

Appeal No. 2015-2406

USA
Appellant AMAZON TECHNOLOGIES, INC

Tokyo, Japan
Patent Attorney TANI&ABE, P.C.

The case of appeal against an examiner's decision of refusal of Japanese Patent Application No. 2013-502763, entitled "Managing Committed Request Rate for Shared Resources" (international publication on Oct. 6, 2011: WO2011/123467, and national publication of the translated version on Jun. 17, 2013: National Publication of International Patent Application No. 2013-524343) has resulted in the following appeal decision:

Conclusion

The appeal of the case was groundless.

Reason

No. 1 History of the procedures

The Application in connection with the appeal of the case (hereinafter, referred to as "the Application") is an application

with claim of priority under the Paris Convention based on an application filed on Mar. 29, 2010 (hereinafter, referred to as "the Priority Date") in the US

that was originally filed on Mar. 29, 2011 as an International Patent Application, for which

a document prescribed in Article 184-5(1) of the Patent Act was submitted on Sep. 26, 2012,

a request for examination was made on the same day,

a notice of reasons for refusal was made on Dec. 20, 2013 (it was dispatched on Jan. 7, 2014),

a written opinion was submitted on Apr. 7, 2014,

in conjunction with this, an amendment was made on the same day,

a decision of refusal was made on Sep. 30, 2014 (a copy was dispatched and delivered on Oct. 7, 2014),

an appeal was made on Feb. 6, 2015, and

in conjunction with this, an amendment was made on the same day.

Meanwhile, a report prescribed in Article 164(3) of the Patent Act (a reconsideration report made to the JPO Commissioner in the procedure of reconsideration by examiners before appeal proceedings) was made on Apr. 17, 2015, and

a written statement was submitted on Jun. 12, 2015.

No. 2 Decision to dismiss amendment for the amendment dated Feb. 6, 2015

[Conclusion of Decision to Dismiss Amendment]

The amendment dated Feb. 6, 2015 shall be dismissed.

[Reason]

1. Details of amendment

The detail of the amendment dated Feb. 6, 2015 (Hereinafter, referred to as "The Amendment") is an amendment to amend the statements of claims 1 to 14 of the scope of claims having been amended by the amendment dated Apr. 7, 2014, that is,

"[Claim 1] A computer-implemented method of adjusting usage of shared computer resources, the method comprising:

receiving, with respect to a type of resource, a request for a committed request rate for input/output operations per second guaranteed for a customer, the customer having a current committed request rate for the type of resource, wherein a portion of a capacity of the type of resource that is guaranteed for the customer and not being used by the customer is capable of being used by at least one other customer;

if the committed request rate is less than the current committed request rate, reducing the committed request rate for at least one instance of the type of resource for the customer;

if the request relates to increasing the committed request rate, committing at

least a portion of an available committable rate capacity of at least one instance of the type of resource to obtain the committed request rate; and

storing information for the committed request rate for the customer for use in managing a rate of request handling for the customer.

[Claim 2]

The computer-implemented method of claim 1, wherein reducing the committed request rate includes reducing a number of instances of the type of resource to provide the committed request rate for the customer when a fewer number of instances are available to provide the committed request rate.

[Claim 3]

The computer-implemented method of claim 1, wherein increasing or reducing the committed request rate includes providing the committed request rate for the customer by a different instance of the type of resource.

[Claim 4]

The computer-implemented method of claim 1, wherein the at least one instance is further capable of having additional users sharing the resource when request capacity for the instance allows for the additional users.

[Claim 5]

The computer-implemented method of claim 1, wherein the committed request rate for a type of resource is a committed rate of input/output operations per second (IOPS) for a data server.

[Claim 6]

The computer-implemented method of claim 1, wherein each instance is capable of supporting committed request rates for multiple customers, each instance further being capable of supporting requests for additional customers without committed request rates.

[Claim 7]

A system for adjusting usage of a shared computer resource, comprising:

at least one processor; and

a memory including instructions that, when executed by the at least one processor, cause the system to:

receive, with respect to a type of resource, a request for a committed rate for input/output operations per second guaranteed for a customer, the customer having a current committed rate for the type of resource, wherein a portion of a capacity of the type of resource that is guaranteed to the customer and not being used by the customer

is capable of being used by at least one other customer;

if the committed rate is less than the current committed rate, reduce the committed rate for at least one instance of the type of resource for the customer;

if the request relates to increasing the committed rate, commit at least a portion of an available committable rate capacity of at least one instance of the type of resource to obtain the committed rate; and

store information for the committed rate for the customer for use in managing a rate of request handling for the customer.

[Claim 8]

The system of claim 7, wherein reducing the committed rate includes reducing a number of instances of the type of resource to provide the committed rate for the customer when a fewer number of instances are available to provide the committed rate, and

wherein increasing or reducing the committed rate includes providing the committed rate for the customer by a different instance of the type of resource.

[Claim 9]

A computer-implemented method of managing usage of shared computer resources, comprising:

receiving, with respect to a type of resource, a request for a committed usage rate for input/output operations per second;

determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate; and

assigning at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate,

wherein the at least one instance is further capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users.

[Claim 10]

The computer-implemented method of claim 9, wherein the committed usage rate for a type of resource is a committed rate of input/output operations per second (IOPS) for a data server.

[Claim 11]

The computer-implemented method of claim 9, wherein determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate includes determining at least one instance having at least an allowable portion of the capacity of that instance uncommitted to other users.

[Claim 12]

The computer-implemented method of claim 9, wherein if no combination of instances is determined to be capable of providing the committed usage rate corresponding to the request, the request is denied.

[Claim 13]

A system for managing usage of a shared computer resource, comprising:

at least one processor; and

a memory including instructions that, when executed by the at least one processor, cause the system to:

receive, with respect to a type of resource, a request for a committed usage rate for input/output operations per second;

determine at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate; and

assign at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate,

wherein the at least one instance is further capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users.

[Claim 14]

The system of claim 13, wherein determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate includes determining at least one instance having at least an allowable portion of the capacity of that instance uncommitted to other users." (hereinafter, the claims described in this scope of claims are referred to as "Claims before Amendment") to

"[Claim 1] A computer-implemented method of adjusting usage of shared computer resources, the method comprising:

receiving, with respect to a type of resource, a request for a committed request rate for input/output operations per second guaranteed for a customer, the customer having a current committed request rate for the type of resource, wherein a portion of a capacity of the type of resource that is guaranteed for the customer and not being used by the customer is capable of being used by at least one other customer;

if the committed request rate is less than the current committed request rate, reducing the committed request rate for at least one instance of the type of resource for the customer;

if the request relates to increasing the committed request rate, committing at least a portion of an available committable rate capacity of at least one instance of the

type of resource to obtain the committed request rate;

storing information for the committed request rate for the customer for use in managing a rate of request handling for the customer, and

if a fewer number of instances are available to provide the committed request rate, moving and integrating the committed request rate to the fewer number of instances.

[Claim 2]

The computer-implemented method of claim 1, wherein reducing the committed request rate includes reducing a number of instances of the type of resource to provide the committed request rate for the customer when a fewer number of instances are available to provide the committed request rate.

[Claim 3]

The computer-implemented method of claim 1, wherein increasing or reducing the committed request rate includes providing the committed request rate for the customer by a different instance of the type of resource.

[Claim 4]

The computer-implemented method of claim 1, wherein the at least one instance is further capable of having additional users sharing the resource when request capacity for the instance allows for the additional users.

[Claim 5]

The computer-implemented method of claim 1, wherein the committed request rate for a type of resource is a committed rate of input/output operations per second (IOPS) for a data server.

[Claim 6]

The computer-implemented method of claim 1, wherein each instance is capable of supporting committed request rates for multiple customers, each instance further being capable of supporting requests for additional customers without committed request rates.

[Claim 7]

A system for adjusting usage of a shared computer resource, comprising:

at least one processor; and

a memory including instructions that, when executed by the at least one processor, cause the system to:

receive, with respect to a type of resource, a request for a committed rate for input/output operations per second guaranteed for a customer, the customer having a current committed rate for the type of resource, wherein a portion of a capacity of the

type of resource that is guaranteed to the customer and not being used by the customer is capable of being used by at least one other customer;

if the committed rate is less than the current committed rate, reduce the committed rate for at least one instance of the type of resource for the customer;

if the request relates to increasing the committed rate, commit at least a portion of an available committable rate capacity of at least one instance of the type of resource to obtain the committed rate;

store information for the committed rate for the customer for use in managing a rate of request handling for the customer; and

if a fewer number of instances are available to provide the committed rate, move and integrate the committed rate to the fewer number of instances.

[Claim 8]

The system of claim 7, wherein reducing the committed rate includes reducing a number of instances of the type of resource to provide the committed rate for the customer when a fewer number of instances are available to provide the committed rate, and

wherein increasing or reducing the committed rate includes providing the committed rate for the customer by a different instance of the type of resource.

[Claim 9]

A computer-implemented method of managing usage of shared computer resources, comprising:

receiving, with respect to a type of resource, a request for a committed usage rate for input/output operations per second;

determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate;

assigning at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate, and

if a fewer number of instances are available to provide the committed usage rate, moving and integrating the committed usage rate to the fewer number of instances,

wherein the at least one instance is further capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users.

[Claim 10]

The computer-implemented method of claim 9, wherein the committed usage rate for a type of resource is a committed rate of input/output operations per second (IOPS) for a data server.

[Claim 11]

The computer-implemented method of claim 9, wherein determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate includes determining at least one instance having at least an allowable portion of the capacity of that instance uncommitted to other users.

[Claim 12]

The computer-implemented method of claim 9, wherein if no combination of instances is determined to be capable of providing the committed usage rate corresponding to the request, the request is denied.

[Claim 13]

A system for managing usage of a shared computer resource, comprising:

at least one processor; and

a memory including instructions that, when executed by the at least one processor, cause the system to:

receive, with respect to a type of resource, a request for a committed usage rate for input/output operations per second;

determine at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate; and

assign at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate, and

<u>if a fewer number of instances are available to provide the committed usage rate, move and integrate the committed usage rate to the fewer number of instances,</u>

wherein the at least one instance is further capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users.

[Claim 14]

The system of claim 13, wherein determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate includes determining at least one instance having at least an allowable portion of the capacity of that instance uncommitted to other users." (Note for the body: The underlines are given by the applicant. Hereinafter, the claims described in this scope of claims are referred to as "Claims after Amendment").

Then, the Amendment has been made within the matters described in the Japanese translation of the specification, the scope of claims, and drawings (only for statements in the drawings) of the international patent application on the international

application date prescribed in Article 184-4(1) of the Patent Act, or in the drawings (excluding the statements in the drawings) of the international patent application on the international application date (hereinafter, referred to as "Translation and the like"), and, thus, complies with the prescriptions of Article 17-2(3) of the Patent Act.

2. Purpose requirements

Below is an examination of whether or not the Amendment is an amendment that complies with the prescriptions of Article 17-2(5) of the Patent Act; that is, whether the Amendment is an amendment that aims at any of deletion of claim, restriction of the scope of claims (it is limited to ones which restrict a necessary matter to specify the invention described in a claim under the provisions of Article 36(5) of the Patent Act, and, further, in which the field of industrial application of and the problem to be solved by the invention according to the claim in question before amendment and those of the invention described in the claim in question after amendment are identical), correction of errors, or clarification of an ambiguous description (limited to ones that are made with respect to matters shown in reasons for refusal relating to the notice of reasons for refusal) prescribed in Article 17-2(5) of the Patent Act.

(1) When the claims before the Amendment and the claims after the Amendment are compared, it is obvious that claims 1-14 after the Amendment correspond to claims 1-14 before the Amendment, respectively.

A. The amendment relating to claim 1 after the Amendment is one formed by the following Amended matter 1.
<Amended matter 1>
An amendment to add
"if a fewer number of instances are available to provide the committed request rate, moving and integrating the committed request rate to the fewer number of instances" of claim 1 after the Amendment to
"method" of claim 1 before the Amendment.

B. The amendment relating to claim 7 after the Amendment is one formed by the following Amended matter 2.
<Amended matter 2>
An amendment to add

"if a fewer number of instances are available to provide the committed rate, move and integrate the committed rate to the fewer number of instances" of claim 7 after the Amendment to

"instructions" included in "memory" of claim 7 before the Amendment.

C. The amendment relating to claim 9 after the Amendment consists of the following Amended matter 3.

<Amended matter 3>

An amendment to add

"if a fewer number of instances are available to provide the committed usage rate, moving and integrating the committed usage rate to the fewer number of instances" of claim 9 after the Amendment to

"method" of claim 9 before the Amendment.

D. The amendment relating to claim 13 after the Amendment consists of the following Amended matter 4.

<Amended matter 4>

An amendment to add

"if a fewer number of instances are available to provide the committed usage rate, move and integrate the committed usage rate to the fewer number of instances" of claim 13 after the Amendment to

"instructions" included in "memory" of claim 13 before the Amendment.

(2) Judgment by the body

It is recognized that "if a fewer number of instances are available to provide the committed request rate, moving and integrating the committed request rate to the fewer number of instances" added by the above-mentioned Amended matter 1

is not an amendment to restrict any processing included in claim 1 before the Amendment, but

is an amendment to add new processing to claim 1 before the Amendment.

Therefore, the above-mentioned Amended matter 1 is not an amendment to restrict a necessary matter to specify the invention that has been described in claim 1 before amendment, and, thus, it cannot be recognized as an amendment for the purpose of restriction of the scope of claims of Article 17-2(5)(ii) of the Patent Act.

In addition, it is not also recognized that the purpose of the above-mentioned Amended matter 1 falls under the category of deletion of claim of Article 17-2(5)(i) of the Patent Act, or correction of errors of Article 17-2(5)(iii), or clarification of an ambiguous description of Article 17-2(5)(iv) of the same Act.

The same applies to the Amended matters 2-4.

(3) Summary

As examined about the above-mentioned Amended matters 1-4, the Amendment is not an amendment that is limited to one aimed at matters prescribed in each item of Article 17-2(5) of the Patent Act as applied mutatis mutandis pursuant to the provisions of Article 184-12(2) of the same Act.

3. Independent requirements for patentability

As stated above, the Amendment is not an amendment that is limited to one aimed at matters prescribed in each item of Article 17-2(5) of the Patent Act. However, supposing that the Amendment is an amendment aiming at restriction in a limited way, it will be examined below whether or not

the appellant can be granted a patent independently for the inventions according to claims 1-14 after the Amendment at the time of filing of the patent application (whether or not they comply with the provisions of Article 126(7) of the Patent Act as applied mutatis mutandis pursuant to the provisions of Article 17-2(6) of the same Act).

3-1. Regarding Article 36(6)(ii) of the Patent Act

(1) Claims 1-8

In relation to "if a fewer number of instances are available to provide the committed request rate, moving and integrating the committed request rate to the fewer number of instances" stated in claim 1 after the Amendment,

it is unclear that "the committed request rate" indicates which "committed request rate" stated before.

For example, it is not specified whether it means "committed request rate" that has been received or requested, or it means "current committed request rate."

The same applies to "the committed rate" of the invention according to claim 7

which has an invention category changed from the former.

The same also applies to claims 2-6 and 8 that refer to claims 1 or 7.

Accordingly, the inventions according to claims 1-8 after the Amendment are unclear.

(2) Claims 1-14

Regarding "if a fewer number of instances are available to provide the committed request rate, moving and integrating the committed request rate to the fewer number of instances" stated in claim 1 after the Amendment,

it is unclear that what processing the "moving" "the committed request rate" means specifically.

For example, it is unclear whether "moving" "the committed request rate" means processing of "determining" and "assigning" "a fewer number of instances" at the time of request from the beginning, or

whether it means that, immediately after assigning "requested committed request rate" of "the committed request rate" having been received to any instance once, the instance that is the assignee is changed, or

whether it means that, after changing the instance being the assignee to "committed request rate" of a request in the past, not of a current request, "committed request rate" of the current request is reflected. Therefore, a subject of moving processing and its specific procedure are not clear.

The same applies to "move" "the committed rate" in claim 7, and "moving (move)" "the committed usage rate" of claims 9 and 13.

The same also applies to claims 2-6, 8, 10-12, and 14 that refer to claims 1, 7, 9, or 13.

Accordingly, the inventions according to claims 1-14 after the Amendment are not clear.

(3) Claims 1-14

Regarding "if a fewer number of instances are available to provide the committed request rate" stated in claim 1 after the Amendment,

it is unclear which specific procedure is used to determine whether or not such situation exists.

The same applies to "if a fewer number of instances are available to provide the committed rate" of claim 7 and "if a fewer number of instances are available to provide the committed usage rate" of claims 9 and 13.

The same applies to claims 2-6, 8, 10-12, and 14 that refer to claims 1, 7, 9, or 13.

Therefore, the inventions according to claims 1-14 after the Amendment are not clear.

(4) Accordingly, the statements of the scope of claims after the Amendment do not meet the requirement stipulated in Article 36(6)(ii) of the Patent Act, and, thus, the appellant should not be granted a patent for the inventions according to claims 1-14 after the Amendment independently at the time of patent application.

3-2. Regarding Article 29(2) of the Patent Act

(1) The Amended Invention

Although the inventions according to claims 1-14 after the Amendment are unclear as examined in the above-mentioned "3-1. Regarding Article 36(6)(ii) of the Patent Act," the following examination will be performed supposing that they are just as described in claims 1-14 after the Amendment.

It is recognized that the Amended Invention is an invention described in claim 9 of the scope of claims amended by the above-mentioned written amendment dated Feb. 6, 2015 as follows.

"A computer-implemented method of managing usage of shared computer resources, comprising:

receiving, with respect to a type of resource, a request for a committed usage rate for input/output operations per second;

determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate;

assigning at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate, and

if a fewer number of instances are available to provide the committed usage rate, moving and integrating the committed usage rate to the fewer number of instances,

wherein the at least one instance is further capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users."

(2) Cited Document

A. Technical matters described in the Cited Document 1 and Cited Invention

In Japanese Unexamined Patent Application Publication No. 2002-24192 (the application was published on Jan. 25, 2002, and the publication is referred to as "the Cited Document 1" hereinafter) that was distributed before the priority date for the Application, and cited in the notice of reasons for refusal dated Dec. 20, 2013 mentioned above that is the reason of the decision of refusal of the original examination (hereinafter, referred to as "the Original-Examination's Reason for Refusal"), there are described the following technical matters together with related drawings. (Note for the body: Underlines were added by the body for reference)

<A>."[0006] It is becoming common that a service level contract is made between a user and an ASP and ISP (Internet Service Provider). A contract about guaranty of a service level such as connectivity, availability, and latency performance is made. Furthermore, a contract form of making a compensation contract in case of not meeting a guaranty level is often taken.

...(omitted)...

[0009]

[Means for Solving the Problem] In order to solve the above problem, in the present invention, there are provided a resource division means and a method to divide and allocate a computer resource and a storage resource of a data center in real time for each user company based on user load variation."

<B>."[0030] FIG. 4 is a configuration diagram of a management server C0. T19 is a user identification table, and it is set by a control program P20 based on a user condition input screen of FIG. 22. T20 is a service level contract content table for each user, and it is set by the control program P20 based on a service level condition input screen of FIG. 23. In this case, for a user of user identifier #0, the content of contract is that at least two web servers, two AP servers, and two DB servers are allocated to the user, and programs are made to run at a CPU operating rate of less than 50% in every allocated server, and the number of servers is increased up to 8 when the operating rate condition is likely to be violated. Also, for a user of user identifier #1, the content of contract is that at least two web servers, two AP servers, and two DB servers are allocated to the user, access reply throughput of a data center is maintained at a level equal to or more than 30 replies per second, and the number of servers is increased up to 6 servers when the condition is likely to be violated. The control program P20 collates a monitoring

result and the service level contract content table T20 to check whether or not the current resource allocation satisfies a service level contract, and stores the check result in a service history storing table T21. A CPU operating rate history for every server allocated to the user identifier #0, for example, is stored in the service history storing table T21. The control program P20 increases allocated servers when a monitoring result does not satisfy the service level contract. For this reason, a server allocation management table T22 that shows which server is allocated to which user, and a server address correspondence table T23 that is a correspondence table between a server name recognized by user applications and an allocated real server are maintained. ...(remainder omitted)..."

<C>."[0036] Next, a procedure by which the control program P20 changes resource allocation at the time of load increase will be described below by reference to FIG. 8.
[0037] As previously mentioned, operation information of a system is monitored via the signal lines L100, L200, L300, L0 (1301), operation information for each user identifier is aggregated and is stored in the service history storing table T21 (1302), is compared with the service level contract content table T20 (1303), and, after that, whether or not servers are reducible is examined in the light of service level contracts, first (1304). A method for judgment of whether being reducible or not includes a method to perform proportional calculation with respect to a product of a CPU operating rate and the number of servers. For example, if the service level condition for user #0 is less than 50% of CPU operating rate, four servers have been allocated currently as a web server to the user, and every server shows a CPU operating rate of less than 25%, it can be determined that the number of web servers may be reduced up to 2 as a result of simple proportional calculation. In reality, determination is made by multiplying it by a variety of safety factors derived from experience. If it is reducible, a processing suspension instruction is notified to servers of the reduction target via any of the signal lines L100, L200, and L300. The notified servers terminate processing by programs, and release resources that have been used. ...(remainder omitted)..."

<D>."[0038] Returning to the explanation of FIG. 8, whether it is necessary to increase the number of servers is examined, next (1306). Determination of how many servers should be increased should just be made by proportional calculation as is the case with reduction operation. When there is a need for increase, whether there are idle servers to be allocated to each group of web servers, AP servers, and DB servers is examined by referring to the server allocation management table T22 (1307). If there is no idle

server, notification is given to an operation manager (1308). When there are idle servers, a server to be allocated is selected (1309), and load distribution apparatus d100-d300 are instructed to change the server address correspondence tables T30-T32....(remainder omitted)..."

<E>."[0067] [Advantageous Effects of Invention] As described above, in the present invention, a user identifier is given for each user company, computing resources are allocated based on this, and, based on a monitoring result of an operation state of computers, an amount of computing resources can be increased or decreased automatically by comparing the result with a service level contract for each user identifier. ...(remainder omitted)..."

Here, matters described in the above-mentioned Cited Document 1 will be examined.

(A) Considering the statement of the above-mentioned <A> that "in the present invention, there are provided a resource division means and a method to divide and allocate a computer resource and a storage resource of a data center in real time for user company based on user load variation" the statement of the above-mentioned <E> that "in the present invention, a user identifier is given for each user company, computing resources are allocated based on this, and, based on a monitoring result of an operation state of computers, an amount of computing resources can be increased or decreased automatically by comparing the result with a service level contract for each user identifier," the statements of the above-mentioned <B> that "FIG. 4 is a configuration diagram of a management server C0," and "For this reason, a server allocation management table T22 that shows which server is allocated to which user, and a server address correspondence table T23 that is a correspondence table between a server name recognized by user applications and an allocated real server are maintained,"

it can be said that "management server" described in the Cited Document 1 increases and decreases and manages an amount of resources of a data center for each user, and, therefore,

it is understood as, in the Cited Document 1,
"a method of managing an amount of resources of a data center by a management server" is described.

(B) In view of the statements of the above-mentioned <A> that "It is becoming common that a service level contract is made between a user and an ASP and ISP (Internet Service Provider). A contract about guaranty of a service level such as connectivity, availability, and latency performance is made," and the statements of the above-mentioned <B> that "FIG. 4 is a configuration diagram of a management server C0," "T20 is a service level contract content table for each user, and it is set by the control program P20 based on a service level condition input screen of FIG. 23," "Also, for a user of user identifier #1, the content of contract is that at least two web servers, two AP servers, and two DB servers are allocated to the user, access reply throughput of a data center is maintained at a level equal to or more than 30 replies per second, and the number of servers is increased up to 6 servers when the condition is likely to be violated," and "The control program P20 increases allocated servers when a monitoring result does not satisfy the service level contract. For this reason, a server allocation management table T22 that shows which server is allocated to which user, and a server address correspondence table T23 that is a correspondence table between a server name recognized by user applications and an allocated real server are maintained,"

it can be said that, because service level conditions indicating guaranty such as the number of servers and the number of accesses per second (throughput) are input to the control program via the service level condition input screen,
there is described in the Cited Document 1
"that service level conditions including the number of accesses per second, which guarantees an amount of resources, are inputted by a user."

(C) In view of the statement of the above-mentioned <B> that "Also, for a user of user identifier #1, the content of contract is that at least two web servers, two AP servers, and two DB servers are allocated to the user, access reply throughput of a data center is maintained at a level equal to or more than 30 replies per second, and the number of servers is increased up to 6 servers when the condition is likely to be violated," and "The control program P20 increases allocated servers when a monitoring result does not satisfy the service level contract," and the statements of the above-mentioned <D> that "whether it is necessary to increase the number of servers is examined, next (1306). Determination of how many servers should be increased should just be made by proportional calculation as is the case with reduction operation. When there is a need for increase, whether there are idle servers to be allocated to each group of web servers, AP servers, and DB servers is examined by referring to the server allocation

management table T22 (1307). If there is no idle server, notification is given to an operation manager (1308). When there are idle servers, a server to be allocated is selected,"

it can be said that there is described in the Cited Document 1 that
"when there is an idle server that serves to meet the inputted service level condition, it is selected as an allocation server."

(D) In view of the statement of the above-mentioned <C> that "operation information for each user identifier is aggregated and is stored in the service history storing table T21 (1302), is compared with the service level contract content table T20 (1303), and, after that, whether or not servers are reducible is examined in the light of service level contracts, first," "For example, if the service level condition for user #0 is less than 50% of CPU operating rate, four servers have been allocated currently as a web server to the user, and every server shows a CPU operating rate of less than 25%, it can be determined that the number of web servers may be reduced up to 2 as a result of simple proportional calculation," and "If it is reducible, a processing suspension instruction is notified to servers of the reduction target via any of the signal lines L100, L200, and L300. The notified servers terminate processing by programs, and release resources that have been used,"

it can be said that there is described in the Cited Document 1
"that whether or not the number of servers is reducible within a range that meets the inputted service level condition is determined, and, when it is reducible, resources being used by the servers to be reduced are released to reduce the number of servers."

(E) From the matters pointed out in (A)-(D) above, it is recognized that there is described in the Cited Document 1 the following invention (Hereinafter, referred to as "Cited Invention").

"A method of managing an amount of resources of a data center by a management server, the method comprising:

inputting by a user a service level condition including the number of accesses per second that guarantees an amount of resources;

if there is an idle server to meet the inputted service level condition, selecting the idle server as an allocation server; and

determining whether the number of servers is reducible within a range meeting the inputted service level condition, and, if reducible, releasing a resource being used by a server to be reduced to reduce the number of servers."

B. Technical matters described in Cited document 2

In Japanese Unexamined Patent Application Publication No. 2004-355638 (laying open of the application was made on Dec. 16, 2004, and, hereinafter, it is referred to as "Cited Document 2"), which had been distributed before the priority date for the Application, and cited in the Original-Examination's Reason for Refusal, there are described the following technical matters as well as related drawings. (Note for the body: Underlines were added by the body for reference.)

<F>."[0079]

This processing is carried out when a user that uses the host computer 1', or an application program and the like running on the host computer 1' requires a new file area.

[0080]

The client program 11' accepts designation of information on a necessary device according to a request from a user or an application program. Information to be obtained here includes, as in the step 1001 in the first embodiment indicated in FIG. 4, information such as a capacity, performance conditions, and a reliability level of a device that is needed (step 2001).

[0081]

Next, the client program 11' transmits information such as a capacity, performance conditions, and a reliability level that have been designated in step 2001 to the control manager 93 to request a new area of a file system. Based on the information received from the client program 11', the control manager 93 searches for and prepares an area of a device that can be allocated, and the result of this is returned to the client program 11'. Processing of the control manager 93 carried out on this occasion will be discussed below (step 2002)."

C. Technical matters described in Cited Document 3

In Japanese Unexamined Patent Application Publication No. 2008-293283 (the application was published on Dec. 4, 2008, and, hereinafter, referred to as "Cited Document 3"), which had been distributed before the priority date for the Application and cited in the Original-Examination's Reason for Refusal, there are described the

following technical matters together with related drawings. (Note for the body: Underlines were added by the body for reference.)

<G>."[0021]

FIG. 3 is a flowchart showing a flow of processing of "resource allocation processing" (subroutine) in the resource allocation unit 114 of a computer resource management support system of the present embodiment.

Hereinafter, referring to FIG. 9, operations of the "resource allocation processing" (subroutine) in the resource allocation unit 114 will be described by reference to the flowchart shown in FIG. 3. Meanwhile, although FIG. 9 is referred to in relation to the resource allocation processing and resource recovery processing hereinafter, FIG. 9 is a diagram just illustrating an image of management of a memory as an example among various kinds of resources that are deemed to be a resource as mentioned below. Each resource is managed individually, and it is possible to utilize an existing technology as a management method for that.

...(omitted)...

[0023]

...(omitted)...

In step S23, the control unit determines whether or not there is an available resource to spare. More specifically, if a formula "unused resource amount" > allocation resource amount holds, it is determined that there is available resource to spare and a move to step S24 is made, or, if the formula "unused resource amount" > allocation resource amount does not holds, it is then determined that there is no available resource to spare and a move to step S27 is made.

[0024]

In step S24, as processing when there is an available resource to spare, the resource is allocated (refer to FIG. 9 (b)),

...(omitted)...

In step S27, as processing when there is no available resource to spare, whether "already-recovered flag" that shows that a resource has been already recovered is ON or not is checked, and, when the "already-recovered flag" is not ON, a move to step S29 is made, and in the case that the "already-recovered flag" is ON, progress to step S28 is made. Meanwhile, at first, step S29 and the following steps will be performed as a case when the "already-recovered flag" is not ON.

[0025]

In step S29, as processing when the "already-recovered flag" is not ON, an

"emergency flag" is set to ON, and, then, in the next step S30, "simultaneous-recovery processing" (a subroutine shown in FIG. 5) of the simultaneous recovery unit 1152 is called. Then, after carrying out processing in this subroutine, return to a sequence of pieces of processing of step S23 and later is made to continue the determination processing of available resources.
...(remainder omitted)..."

<H> "[0017]...(omitted)... As individual AP information, here, we assume that data items such as a customer name, a system name, a service level, a fee unit price, and a minimum resource value are registered. Meanwhile, regarding a minimum resource value, we also assume that it has been set by preliminary operational verification.
...(omitted)...
[0034]

FIG. 8 is an explanatory drawing showing a configuration example of a SLA information table referred to by the resource allocation unit 114 of a computer resource management support system of the present embodiment.

This SLA information table is individual AP information that is referred to by a low-service-level allocation processing unit 1142 of the resource allocation unit 114 and the simultaneous-recovery processing unit 1152 of the resource recovering unit 115, and it is prepared by the individual AP information registration unit 1132, and registered in the individual AP information DB 13."

<I>."[0035]

FIG. 9 is an explanatory drawing showing a memory image as an example of the virtual resource pool 40.

FIG. 9(a) indicates a minimum resource that is allocated to AP (here, A-F), FIG. 9(b) shows an image where a resource is allocated to AP (here, A-F) additionally according to necessity of each of them when there is a free resource (that is, an unused resource) to spare, and FIG. 9(c) shows an image of a state where resources are allocated additionally one after another according to necessity of each AP (here, A-F). FIG. 9(c) also shows an image where, when there are no free resources (that is, unused resources) to spare, additional allocation to AP B to AP F is not carried out, and their resources are released by compulsion and are accommodated to the AP A so as to allocate an addition resource to AP A."

D. Technical matters described in Cited document 4

In Japanese Unexamined Patent Application Publication No. 2010-33292 (the application published on Feb. 12, 2010, and hereinafter, it is referred to as "Cited Document 4"), which was distributed before the Priority Date for the Application, there are described the following technical matters together with related drawings. (Note for the body: Underlines added by the body for reference.)

<J>."[0028]

Next, description will be given on an overview of operations of a virtual server resource adjustment system.

FIGS. 5-8 are diagrams showing an overview of operations of a virtual server resource adjustment system when a high load state has occurred.

FIG. 5 is a diagram showing an overview of operations regarding reduction of free resources from virtual server groups to which not a very heavy load is applied. In this diagram, we assume that the resource adjustment apparatus 1 has detected that a high load has been caused in the virtual server A belonging to the virtual server group α. The resource adjustment apparatus 1 calculates, about each of virtual servers other than virtual servers A, B, H belonging to the virtual server group α; that is, servers AA, BB, ..., HH, a free resource amount that is a resource amount capable of being reduced from a currently allocated resource amount, and totals each of the calculated amounts of free resources to calculate a total free resource amount UR. After having calculated the total free resource amount UR, the resource adjustment apparatus 1 determines a resource amount to be reduced from each virtual server based on a resource system that indicates which of a scaling-out system and a scaling-up system is adopted to the virtual server group to which the virtual server in question belongs and on a role of each virtual server."

<K>."[0033]

FIG. 9 is a diagram showing an overview of operations of a virtual server resource adjustment system at the time of detecting a low load. When a low load state of a virtual server is detected, the resource adjustment apparatus 1 calculates, for the purpose of adjustment of a virtual server allocation situation of the physical server 3 and of adjustment of resources in line with a resource allocation system for each virtual server group, free resources of all the virtual server groups in which a low load state has been detected, and conducts reallocation targeting all virtual servers, and resource adjustment in line with a resource allocation system for each virtual server group.
[0034]

For example, when a low load of virtual server A belonging to the virtual server group α is detected, the resource adjustment apparatus 1 calculates, about each of all virtual servers A, B, and H that are belonging to the virtual server group α, a free resource amount that is a resource amount capable of being reduced, and calculates a total free resource amount by totaling each of the calculated free resource amounts. Based on the resource allocation system that indicates which one of the scaling-out system and the scaling-up system is adopted in the virtual server group α, and on the roles of the virtual servers A, B, and H belonging to the virtual server group α, the resource adjustment apparatus 1 determines virtual servers whose resource amounts should be reduced and resource amounts to be reduced in the virtual servers in question so as to make the sum of the resource amounts to be reduced be equal to the total free resource amount, thereby reducing resources. Targeting all the virtual servers, the resource adjustment apparatus 1 determines reallocation onto the whole physical server 3, and conducts allocation by moving virtual servers among the physical servers 3-1 to 3-n while making them operate. Here, the virtual server H and the virtual server HH that are arranged in the physical server 3-n come to be arranged in the physical server 3-1 and the physical server 3-2, respectively, and the physical server 3-n will be in a state that there are no virtual servers arranged in it, enabling its power OFF."

<L>."[0037]

Meanwhile, we assume that, as the various kinds of resources, a CPU (Central Processing Unit), a memory, disk I/O, network I/O, and the like are used. In addition, a throughput (the number of pieces of processing per unit time) that is an indication showing a comprehensive consumption situation of resources is used as a kind of resource. Meanwhile, in order to handle an increasing/decreasing amount of resources in a standardized manner even among different pieces of physical server 3, a unit of resource usage is standardized among various kinds of resources. Specifically, we assume that CPU is handled in units of Hz (Hertz) using a total frequency in light of the number of processor cores and CPUs, a memory in units of Byte (byte) as a memory size, disk I/O in units of bps (bits per second) or in units of IOPS (Input Output per Second), and network I/O in units of bps or pps (Packets Per Second)."

<M>."[0061]

FIG. 23 is a diagram for describing calculation of a free resource amount.

The free resource calculation unit 13 reads, from a load situation table stored in the load situation table storing unit 21, information on usage and an access load of

various kinds of resources corresponding to a usual-load-group-affiliated virtual server ID, and, further reads, from a threshold table stored in the threshold table storing unit 23, information of a pair of a resource ID and a high-load threshold corresponding to the usual-load-group-affiliated virtual server ID in question, and compares the resource usage and the high load threshold for each resource. When there is a difference between the resource usage and the high load threshold, the free resource calculation unit 13 determines that the high load threshold can be reduced in view of the excess. It is possible to reduce the portion corresponding to the reduction of the high load threshold, and the reduced resource amount will be a "free resource amount."

<N>."[0075]

[S120: Determination whether free resources are sufficient or not]

The additional resource calculation unit 14 determines whether free resources are sufficient or not. In step S115, it is determined that free resources are not sufficient if: it is determined that a current access load amount in a high-load-detected virtual server is beyond the maximum access load amount; it is determined that, about any of the resources, a calculated necessary resource amount NR is smaller than the free resource amount UR; or it is determined that, about any of the resources, the sum of the calculated necessary resource amount NR and a resource usage of a high load virtual server group (= a high load threshold) exceeds the maximum resource amount of the whole physical server 3. The maximum resource amount of the whole physical server 3 for each of the various kinds of resources can be obtained by totaling a resource amount of each piece of physical server 3 obtained from the physical server table stored in the physical server table storing unit 28 for each of the various kinds of resources.

[0076]

[S125: Determination of a resource addition server]

The additional resource calculation unit 14 assigns all the total free resources UR to high-load-group-affiliated virtual servers belonging to the high load virtual server group.

...(remainder omitted)..."

<P>."[0082]

...(omitted)... In addition, on the occasion that a combination arrangement problem in reallocation is solved, integrating the virtual server 35 onto a single piece of physical server 3 may be added as a constraint condition of the problem in order to improve use efficiency of the physical server 3."

(3) Comparison

A. The Amended Invention and the Cited Invention will be compared.

(A) A "resource" of the Cited Invention is a "resource" of a data center, and it is a common general technical knowledge that a data center consists of computers, and that "risosu (in Katakana)" of the Cited Invention means a "resource". Therefore, the "resource" of the Cited Invention corresponds to a "shared computer resource" and a "type of resource" of the Amended Invention.

In addition, because it is obvious that a "management server" of the Cited Invention is a kind of a computer, it can be said that the "method" of the Cited Invention is a method that is executed by a computer.

Therefore, "A method of managing an amount of resources of a data center by a management server" of the Cited Invention corresponds to "A computer-implemented method of managing usage of shared computer resources" of the Amended Invention.

(B) "Inputting by a user a service level condition including the number of accesses per second that guarantees an amount of resources" of the Cited Invention and "receiving, with respect to a type of resource, a request for a committed usage rate for input/output operations per second" of the Amended Invention will be compared.

As examined in the above (A), a "resource" of the Cited Invention corresponds to a "type of resource" of the Amended Invention.

It can be said that a "service level condition" of the Cited Invention is information indicating a resource requested by a user.

It can be said that "inputting" data corresponds to "receiving" data.

"The number of accesses per second" of the Cited Invention corresponds to "a committed usage rate for input/output operations per second" of the Amended Invention.

Therefore, it can be said that, although the two are different in a point mentioned later, they are common in a point of

"receiving, with respect to a type of resource, a request including a committed usage rate for input/output operations per second."

(C) "If there is an idle server to meet the inputted service level condition, selecting the idle server as an allocation server" of the Cited Invention and

"determining at least one instance of the type of resource operable to provide at

least a portion of the requested committed usage rate" of the Amended Invention are compared.

A "server" of the Cited Invention is an apparatus to provide a resource, and therefore corresponds to "instance" of the Amended Invention.

It can be said that a "service level condition" of the Cited Invention is information indicating a resource requested by a user, and thus it can be said that "an idle server to meet the inputted service level condition" of the Cited Invention is a server that can provide a requested resource.

Furthermore, it can be said that an "inputted service level condition" of the Cited Invention includes "the number of accesses per second"; that is, a requested "committed usage rate for input/output operations per second."

Then, it can be said that "selecting" of the Cited Invention is equal to "determining" an idle server, that is, a server that can provide a requested resource.

Accordingly, it can be said that, although the two are different in a point mentioned later, they are common in a point of

"determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate."

(D) "Determining whether the number of servers is reducible within a range meeting the inputted service level condition, and, if reducible, releasing a resource being used by a server to be reduced to reduce the number of servers" of the Cited Invention and "if a fewer number of instances are available to provide the committed usage rate, moving and integrating the committed usage rate to the fewer number of instances" of the Amended Invention will be compared.

"Reducing the number of servers" "within a range meeting the inputted service level condition" of the Cited Invention is processing that, with respect to a plurality of servers correlated with an inputted service level condition, a fewer number of servers, with which the inputted service level condition can be satisfied; that is, the requested resource can be utilized, are made to be correlated.

On the other hand, "moving and integrating the committed usage rate to the fewer number of instances" of the Amended Invention is processing that makes, with respect to a plurality of instances correlated with a committed usage rate, "a fewer number of instances" be correlated.

In addition, it can be said that "determining whether the number of servers is reducible" of the Cited Invention means determining whether, even by a fewer number of servers, an inputted service level condition can be satisfied; that is, requested resources can be usable or not.

Accordingly, it can be said that, although the two are different in the points mentioned later, they are common in a point that "when a fewer number of instances are available to provide the committed usage rate that has been requested, integrating resources into the fewer number of instances."

B. From the above, the Amended Invention and the Cited Invention are identical in the following point, and different in the following points.

(Corresponding feature)
"A computer-implemented method of managing usage of shared computer resources, comprising:

receiving, with respect to a type of resource, a request including that for a committed usage rate for input/output operations per second;

determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate; and

when a fewer number of instances are available to provide the committed usage rate that has been requested, integrating resources into the fewer number of instances."

(The different feature 1)

A point that it is specified in the Amended Invention about "assigning at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate," whereas,

in the Cited Invention, it is not specified to assign a requested committed usage rate to servers (instances).

(The different feature 2)

A point that, relating to "integrating," "the committed usage rate is moved" in the Amended Invention, whereas,

in the Cited Invention, such point is not specified.

(The different feature 3)

A point that, relating to "the at least one instance,"

"it is capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users" in the Amended Invention, whereas,

in the Cited Invention, such point is not specified.

(4) Judgment by the body

The aforementioned different features will now be discussed below.

A. With respect to Different Feature 1

While, in the Cited Invention, it is specified such that "If there is an idle server to meet the inputted service level condition, selecting the idle server as an allocation server,"

it is a well-known art that has been adopted accordingly in the technical field of information processing in advance of the Priority Date of the Application to assign to a server a needed input/output operation rate per second such as performance conditions for a file area and the number of pieces of processing of disk I/O per unit time, as described in the Cited Document 2 (refer to <F> mentioned above) and the Cited Document 4 (refer to <L> and <N> mentioned above), for example.

Then, it could have been easily conceived of by a person skilled in the art to assign, by applying the above-mentioned well-known art to the Cited Invention, an input/output operation rate per second in a selected "server"; that is, to make it be the constitution relating to the Different Feature 1.

B. With respect to Different Feature 2

While the Cited Invention "determining whether the number of servers is reducible within a range meeting the inputted service level condition, and, if reducible, releasing a resource being used by a server to be reduced to reduce the number of servers,"

a server integration technology to move and integrate functions provided by a plurality of servers (instances) to a fewer number of servers (instances) is a well-known art that has been adopted accordingly in the technical field of distributed processing in advance of the Priority Date of the Application, as described in the Cited Document 4 (refer to <J>, <K>, and <P> above), for example.

Then, on the occasion when applying the above-mentioned well-known art to the Cited Invention so as "to reduce the number of servers," it could have been easily conceived of by a person skilled in the art to move resources of servers of a reduction target to a fewer number of servers; that is, to make it be the constitution relating to Different Feature 2.

C. With respect to Different Feature 3

It is a well-known art that has been adopted accordingly in the technical field of distributed processing in advance of the Priority Date the Application to, if an amount of unused resources or free resources that are reduced and recovered from existing customers or virtual servers is sufficient, allocate them to other customers or virtual servers as described in the Cited Document 3 (refer to the above-mentioned <G>-<I>) and the Cited Document 4 (refer to the above-mentioned <M> and <N>), for example.

Then, it could have been easily conceived of by a person skilled in the art to make, by applying the above-mentioned well-known art to the Cited Invention, resources be shared among users by allocating, when an amount of resources (resosu in Katakana) of servers (instances) to be used is sufficient for allowing other additional users, a resource (resosu in Katakana) of a server (instance) to the additional users; that is, to make it be the constitution relating to Different Feature 3.

D. Summary

As examined above, the constitution relating to Different Feature 1 to Different Feature 3 could have easily been derived by a person skilled in the art, and, even considering these different features comprehensively, functions and effects exerted by the Amended Invention are just ones within a range predicted from the functions and effects exerted by the Cited Invention and the well-known arts in the technical field in question and thus cannot be regarded as particularly distinguishing effects.

Accordingly, the Amended Invention could have invented easily by a person having ordinary skill in the technical field of the invention prior to the filing of the Application based on the inventions described in the publications that had been distributed in Japan or a foreign country or the inventions that had become available to the public through electric communication lines prior to the filing of the Application, and, thus, the appellant should not be granted a patent for the Amended Invention independently under the provisions of Article 29(2) of the Patent Act at the time of

patent application.

4. Closing of declining of amendment

As mentioned above, the Amendment is in breach of Article 17-2(5) of the Patent Act, and even if the Amendment complies with the purpose requirements, it violates the provisions of Article 126(7) of the same Act as applied mutatis mutandis pursuant to the provisions of Article 17-2(6) of the same Act. Therefore, it should be dismissed under the provisions of Article 53(1) of the same Act which is applied mutatis mutandis in the provisions of Article 159(1) of the same Act.

Accordingly, decision has resulted in the decision of the above-mentioned Conclusion of Decision to Dismiss Amendment.

No. 3 With respect to success or failure of the appeal of the case

1. Finding of The Invention

Because the amendment dated Feb. 6, 2015 has been dismissed as above, the invention according to a claim before the Amendment corresponding to claim 1 after the Amendment (hereinafter, referred to as the "Invention") is an invention identified by the matters described in claim 9 of the scope of claims amended by the amendment dated Apr. 7, 2014, and is as follows.

"A computer-implemented method of managing usage of shared computer resources, comprising:

receiving, with respect to a type of resource, a request for a committed usage rate for input/output operations per second;

determining at least one instance of the type of resource operable to provide at least a portion of the requested committed usage rate; and

assigning at least a portion of the requested committed usage rate to each determined instance when the at least one determined instance is capable of providing the committed usage rate,

wherein the at least one instance is further capable of having additional users sharing the resource when usage capacity for the instance allows for the additional users."

2. Technical matters described in Cited Document and finding of the Cited Invention

Technical matters described in Cited Document and the Cited Invention are as described in "No. 2 Decision to dismiss amendment for the amendment dated Feb. 6, 2015," "3. Independent requirements for patentability," "(2) Cited Document."

3. Comparison / judgment

The Invention is an invention made by deleting "if a fewer number of instances are available to provide the committed usage rate, moving and integrating the committed usage rate to the fewer number of instances" from the "method" of the Amended Invention examined in "No. 2 Decision to dismiss amendment for the amendment dated Feb. 6, 2015," "3. Independent requirements for patentability," "3-2. Regarding Article 29(2) of the Patent Act."

Therefore, Different Feature 2 that has been examined in "(3) Comparison" of "3-2. Regarding Article 29(2) of the Patent Act" of "3. Independent requirements for patentability," which corresponds to said deleted matters specifying the invention, is no longer a different feature in the Invention.

Then, because the Amended Invention, which includes all of the matters specifying the Invention, could have been easily invented by a person skilled in the art based on the Cited Invention and the well-known arts of the technical field in question, as has been described in "No. 2 Decision to dismiss amendment for the amendment dated Feb. 6, 2015," "3. Independent requirements for patentability," "3-2. Regarding Article 29(2) of the Patent Act," "(2) Cited Document" to "(4) Judgment by the body," the Invention that is made by eliminating the above-mentioned specific limitation is an invention that could also have been easily invented by a person skilled in the art based on the Cited Invention and the well-known arts of the technical field in question for a similar reason.

4. Regarding written statement dated Jun. 12, 2015

The appellant has presented a draft of amendment in the above-mentioned written statement dated Jun. 12, 2015 (Hereinafter, referred to as "Written-statement Amendment draft").

In the Written-statement Amendment draft, about the invention according to claim 9 after the Amendment, the above-mentioned statement of "if a fewer number of instances are available to provide the committed usage rate, moving and integrating the committed usage rate to the fewer number of instances" has been changed to the statement of

"assigning at least a portion of the requested committed usage rate is, if a fewer number of instances are available to provide the requested committed usage rate, moving and integrating the requested committed usage rate to the fewer number of instances."

The Written-statement Amendment draft is one that restricts "integrating" such that it is included in "assigning," and also restricts "committed usage rate," which is moved, to "requested committed usage rate."

However, as examined in the above-mentioned "No. 2 Decision to dismiss amendment for the amendment dated Feb. 6, 2015," "3. Independent requirements for patentability," "3-1. Regarding Article 36(6)(ii) of the Patent Act," (2), a subject and a specific procedure of moving processing are still unclear, and thus it is unclear what specific processing is indicated by "moving" of "the requested committed usage rate."

The method according to claim 9 of the Written-statement Amendment draft receives "a request for a committed usage rate," and, on the occasion of assigning the "requested committed usage rate" to instances, makes the "requested committed usage rate" be moved to a fewer number of instances.

On the other hand, in view of the specification of the Application, in paragraph [0064], for example, there is described that "by moving the initial request from the first resource instance 502, the system can provide requested rate commitment using two, not three, resource instances", and

two of "initial request" and "requested rate commitment" are specified.

Therefore, it is considered that a subject of moving processing is not a "committed usage rate" concerning a "request" received at the moment, and a "committed usage rate" concerning the "initial request" received in the past is moved.

However, in the statements of claim 9 of the Written-statement Amendment draft, an "initial request" and "request" received at the moment are not distinguished, and, therefore, even if the specification of the Application is taken into consideration, the specific content of "moving" processing described in claim 9 of the Written-

statement Amendment draft is unclear.

In addition, as examined in (3) of "3-1. Regarding Article 36(6)(ii) of the Patent Act," it is still unclear that, by what procedure there is determined a state that "if a fewer number of instances are available to provide the committed request rate" stated in claim 1 after the Amendment.

The same applies to claims 1-8, and 10-14 of the Written-statement Amendment draft.

Therefore, the inventions according to claims 1-14 of the Written-statement Amendment draft violate the provisions of Article 36(6)(ii) of the Patent Act, and, therefore, the appellant should not be granted a patent for the inventions.

Even if examination is made about Article 29(2) of the Patent Act relating to "3. Independent requirements for patentability" assuming that the inventions according to claims 1-14 of the Written-statement Amendment draft comply with the prescriptions of Article 36(6)(ii) of the Patent Act,

it is a well-known art that has been adopted accordingly in the technical field of information processing in advance of the Priority Date of the Application as described in paragraphs [0003], [0033]-[0036], [0054], [0085]-[0086] of Japanese Unexamined Patent Application Publication No. 2009-217434 (the application published on Sep. 24, 2009), for example, to reallocate, in a data center that lends bandwidths, resources when increasing and decreasing of a requested resource amount occurs so as to make excess performance of servers become small. Therefore, it could have been easily conceived of by a person skilled in the art to apply the above-mentioned well-known art to the Cited Invention, and, at the time of occurrence of increasing and decreasing of a requested resource amount; that is, when a new request is received, to reallocate; that is, move resources such as a bandwidth.

Accordingly, the invention according to claim 9 of the Written-statement Amendment draft violates the provisions of Article 29(2) of the Patent Act, and thus the appellant should not be granted a patent for that.

As shown above, the Written-statement Amendment draft does not comply with Article 17-2(6) of the Patent Act, and, even if amendment is made according to the draft of amendment in question as is, this should be dismissed under the provisions of Article 53(1) of the same Act which is applied mutatis mutandis in the provisions of Article 159(1) of the same Act. Therefore, there is no benefit to create an occasion for further

amendment.

5. Closing

As mentioned above, the appellant should not be granted a patent for the invention according to claim 1 of the Application in accordance with the provisions of Article 29(2) of the Patent Act, and, therefore, the Application should be rejected without examining other claimed inventions.

Accordingly, the appeal decision shall be made as described in the conclusion.

Oct. 27, 2015

Chief administrative judge: TAKAGI, Susumu
Administrative judge: TOSHIMA, Hiroshi
Administrative judge: ISHII, Shigekazu