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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
13/171,558 06/29/2011 Patrick J. O'Sullivan AUS920110252US1 5744

50170 7590 11/07/2013
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EXAMINER

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ART UNIT PAPER NUMBER

3689

MAIL DATE DELIVERY MODE

11/07/2013

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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1. The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Status of Claims

2. **Claims 1, 13, and 25** have been **amended**.
3. **No claims** have been **added** or **cancelled**.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 13 – 24** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. One of ordinary skill in the art would have recognized that a transitory wave can be considered to be a computer readable medium. As such, since the specification has failed to exclude transitory signals as being mediums a rejection under 35 USC 101 has been provided. In order to overcome the rejection, the Examiner suggests amending the claims to disclose that the computer readable medium is non-transitory.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. **Claims 1 – 4, 6 – 10, 13 – 16, 18 – 22, and 25** are rejected under 35

U.S.C. 102(b) as being anticipated by **Chambliss et al. (US Patent 7,334,032 B2)**.

8. In regards to **claims 1, 13, and 25**, **Chambliss** discloses a method, in a data processing system comprising at least one computing device and a plurality of computing resources, for migrating a computing environment entitlement contract from one computing resource to another, a computer program product comprising a computer readable storage medium having a computer readable program stored therein, wherein the computer readable program, when executed in a data processing system comprising at least one computing device, causes a computing device of the at least one computing device to, and an apparatus comprising:

(Claim 25) at least one processor; and at least one memory coupled to the at least one processor, wherein the at least one memory comprises instructions which, when executed by the at least one processor **(as will be later discussed, the steps/functions are being executed by at least one computer system having a processor and memory)**, cause the at least one processor to:

generating, by the at least one computing device, one or more computing environment entitlement contract (CEEC) data structures, each CEEC data structure defining terms of a business level agreement between a contracting party and a provider of the data processing system, wherein the terms of the CEEC specify a set of computing resources having a specified configuration, and further specify that the set of computing resources are to be used by the contracting party for a specified purpose at a specified level and pattern of intensity for a specified period of time **(Col. 1 Lines 22 –**

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31; Col. 2 Lines 43 – 56; Col. 3 – 4 Lines 32 – 6; Col. 4 Lines 15 – 46; Col. 6 Lines 31 – 33; Col. 6 – 7 Lines 49 – 10 wherein the system performs an analysis of whether a requesting candidate should be serviced by analyzing the workload of the requesting candidate and the system’s current workload, i.e. currently serviced candidates, in order to determine whether the addition of the requesting candidate would result in the system (provider) not fulfilling the QoS that has been defined in the terms of the SLA, and wherein the analysis is based on specified level and pattern of intensity for a period of time of the requesting candidate and current workload. The Examiner asserts that CEEC (terms of the SLA/QoS to fulfill the terms of the SLA) is nothing more than the terms of the contract (SLA) between the candidate (contracting party/buyer) and the provider (seller).);

associating, by the at least one computing device, the one or more CEEC data structures with a computing resource cohort, wherein the computing resource cohort is a collection of computing resources having similar configurations **(Col. 1 Lines 7 – 11; Col. 2 Lines 43 – 56; Col. 3 Lines 1 – 8; Col. 4 Lines 30 – 37; Col. 6 Lines 11 – 17, 31 – 33; Col. 6 – 7 Lines 49 – 10 wherein the analysis to determine whether the requesting candidate should be serviced/added the system (provider) must first identify/associate the computing resources of the provider/seller and the computing resources of the user/contracting party/buyer. To put it another way, the Examiner asserts that the “seller” and “buyer” of the claimed invention are not individuals, but “computing resources or collections of computing**

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resources”, thereby resulting in the scenario that by associating the computing resource one is also identifying the buyer/seller and vice-versa since in order to carry out the analysis the two computing resources must be known, as well as the configurations of each computing resource in order to determine whether the candidate (computing resource) can be added/serviced by the provider. Further, Chambliss discloses a system and method that provides services for a particular type of service, e.g., storage, thereby resulting in the analysis having to determine that the candidates (both potential and currently serviced) have similar configurations, e.g., but not limited to, capable of I/O, especially since the term “similar” is broad. In other words, a “similar” configuration is a broad term that results in the understanding that any characteristic/attribute/functions that the computing resources share/have reads on the claimed invention. Since the provider is providing storage services the computing resources must be able to utilize the storage services, thereby having a configuration that is able to utilize the storage services resulting in the computing resources having similar configurations.);

identifying, by the at least one computing device, a seller of a CEEC data structure, in the one or more CEEC data structures **(Col. 1 Lines 7 – 11; Col. 2 Lines 43 – 56; Col. 3 Lines 1 – 8; Col. 4 Lines 30 – 37; Col. 6 Lines 11 – 17, 31 – 33; Col. 6 – 7 Lines 49 – 10 wherein the analysis to determine whether the requesting candidate should be serviced/added the system (provider) must first identify/associate the computing resources of the provider/seller and the**

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computing resources of the user/contracting party/buyer. To put it another way, the Examiner asserts that the “seller” and “buyer” of the claimed invention are not individuals, but “computing resources or collections of computing resources”, thereby resulting in the scenario that by associating the computing resource one is also identifying the buyer/seller and vice-versa since in order to carry out the analysis the two computing resources must be known, as well as the configurations of each computing resource in order to determine whether the candidate (computing resource) can be added/serviced by the provider);

identifying, by the at least one computing device, a buyer of a CEEC data structure, in the one or more CEEC data structures **(Col. 1 Lines 7 – 11; Col. 2 Lines 43 – 56; Col. 3 Lines 1 – 8; Col. 4 Lines 30 – 37; Col. 6 Lines 11 – 17, 31 – 33; Col. 6 – 7 Lines 49 – 10 wherein the analysis to determine whether the requesting candidate should be serviced/added the system (provider) must first identify/associate the computing resources of the provider/seller and the computing resources of the user/contracting party/buyer. To put it another way, the Examiner asserts that the “seller” and “buyer” of the claimed invention are not individuals, but “computing resources or collections of computing resources”, thereby resulting in the scenario that by associating the computing resource one is also identifying the buyer/seller and vice-versa since in order to carry out the analysis the two computing resources must be known, as well as the configurations of each computing resource in order to determine whether the candidate (computing resource) can be added/serviced by the provider);**

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migrating the CEEC data structure from the seller to the buyer (**Col. 4 – 5 Lines 47 – 14; Col. 6 Lines 2 – 17; Col. 7 Lines 3 – 10 wherein the invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA.**); and

executing workloads in accordance with terms specified in the CEEC data structure at the buyer after migrating the CEEC data structure from the seller to the buyer, wherein the seller and the buyer are computing resources or collections of computing resources (**Col. 1 Lines 7 – 11, 22 – 40; Col. 2 Lines 43 – 56; Col. 4 – 5 Lines 47 – 14; Col. 6 – 7 Lines 49 – 10 wherein the provider/seller, must adhere to the terms of the SLA in order to avoid any penalties for all candidates that the provider has accepted to provide service to).**

9. In regards to **claims 2 and 14, Chambliss** discloses wherein the seller is a computing resource that is not being utilized in accordance with the terms specified in the CEEC data structure, and wherein the buyer is a computing resource capable of satisfying the terms specified in the CEEC data structure (**Col. 2 Lines 43 – 67; Col. 4 Lines 47 – 64 wherein the provider/seller is able to determine whether the**

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candidate/buyer/contracting party can be serviced by performing an analysis, as discussed above, which takes into account computing resources that the seller is not utilizing, i.e. available computing resources, and must further determine whether the available computing resources would be available to meet the needs of the requesting candidate while ensuring the QoS of all candidates are being/will be met.)

10. In regards to **claims 3 and 15, Chambliss** discloses wherein determining whether or not to migrate the CEEC data structure from the seller to the buyer is performed based on the terms specified in the CEEC data structure (**Col. 1 Lines 22 – 40; Col. 2 Lines 43 – 67; Col. 4 Lines 47 – 64 wherein the provider/seller is able to determine whether the candidate/buyer/contracting party can be serviced by performing an analysis, as discussed above, which takes into account computing resources that the seller is not utilizing, i.e. available computing resources, and must further determine whether the available computing resources would be available to meet the needs of the requesting candidate while ensuring the QoS of all candidates are being/will be met, wherein the QoS is based on the terms established in the SLA**).

11. In regards to **claims 4 and 16, Chambliss** discloses further comprising determining whether or not to migrate the CEEC data structure from the seller to the buyer based on business objective criteria specified in a transaction specification, wherein the migrating of the CEEC data structure from the seller to the buyer is performed only in response to a determination that the migration of the CEEC data

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structure satisfies the business objective criteria specified in the transaction specification (**Col. 4 – 5 Lines 47 – 14; Col. 6 Lines 2 – 17; Col. 7 Lines 3 – 10 wherein the invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA.**).

12. In regards to **claims 6 and 18, Chambliss** discloses wherein a plurality of transaction instances for migrating CEEC data structures between sellers and buyers are generated based on the transaction specification, and wherein the business objective criteria of the transaction specification is used with each transaction instance to determine if migrations of CEEC data structures between sellers and buyers associated with the transaction instance are to be performed (**Col. 4 – 5 Lines 47 – 14; Col. 6 Lines 2 – 17; Col. 7 Lines 3 – 10 wherein the invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the**

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additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA.).

13. In regards to **claims 7 and 19, Chambliss** discloses wherein identifying a seller of a CEEC data structure, identifying a buyer of a CEEC data structure, and migrating the CEEC data structure from the seller to the buyer are performed in accordance with the business objective criteria of an instance of the transaction specification (**Col. 1 Lines 7 – 11; Col. 2 Lines 43 – 56; Col. 3 Lines 1 – 8; Col. 4 Lines 30 – 37; Col. 6 Lines 11 – 17, 31 – 33; Col. 6 – 7 Lines 49 – 10 wherein the analysis to determine whether the requesting candidate should be serviced/added the system (provider) must first identify/associate the computing resources of the provider/seller and the computing resources of the user/contracting party/buyer. To put it another way, the Examiner asserts that the “seller” and “buyer” of the claimed invention are not individuals, but “computing resources or collections of computing resources”, thereby resulting in the scenario that by associating the computing resource one is also identifying the buyer/seller and vice-versa since in order to carry out the analysis the two computing resources must be known, as well as the configurations of each computing resource in order to determine whether the candidate (computing resource) can be added/serviced by the provider, as discussed above; Col. 4 – 5 Lines 47 – 14; Col. 6 Lines 2 – 17; Col. 7 Lines 3 – 10 wherein the invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used**

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to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA).

14. In regards to **claims 8 and 20**, **Chambliss** discloses wherein ***at least one*** of the seller or buyer do not indicate a desire to be a seller or a buyer prior to identification of the seller and buyer in accordance with the business objective criteria of the instance of the transaction specification **(Inherently included in that the seller would not indicate themselves to be a buyer and the buyer would not indicate themselves to be a seller prior to the identification of the seller and buyer since that would go against the intended service/request that the seller and buyer are seeking for. Moreover, this would be in accordance with the SLA because if the seller/buyer were to indicate that they are the buyer/seller, respectively, then the invention would not be able to proceed since, for example, it does not make any logical sense as to why the buyer would identify themselves as a seller when the buyer is seeking for services.)**

15. In regards to **claims 9 and 21**, **Chambliss** discloses wherein migrating the CEEC data structure from the seller to the buyer is performed in accordance with the instance of the transaction specification, and wherein the instance of the transaction specification is executed using four transaction phases comprising a creation phase in which the instance of the transaction specification is created, an assembly phase in

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which the seller and the buyer signal acceptance of the transaction, an initiation phase in which a determination is made as to whether completion of the migration meets the business objective criteria specified in the instance of the transaction specification, and a settlement phase in which the migration is completed between the seller and the buyer **(regarding “wherein migrating the CEEC data structure from the seller to the buyer is performed in accordance with the instance of the transaction specification” the Examiner asserts that this has been discussed above; In regards to the four transaction phases, the Examiner asserts that this is inherently included and discussed in Chambliss, albeit not using the same terminology. However, the Examiner asserts that the use of different terminology to explain an equivalent/same process is insufficient to distinguish Chambliss from the claimed invention. With that said, the Examiner points to the following sections of Chambliss: Col. 1 Lines 7 – 11, 22 – 40; Col. 2 Lines 43 – 67; Col. 3 – 5 Lines 1 – 14; Col. 6 – 7 Lines 49 – 10 where Chambliss outlines a very detailed process where a candidate requests for services, in this case storage/migration services, to be provided by a provider, wherein satisfaction of the service is based on the terms of the SLA that outline the QoS that must be met by the provider. The provider then performs an analysis of the current workload, availability, and workload of the requesting candidate in order to determine whether the requesting candidate can be added. If the provider determines that the requirements can be satisfied the provider and candidate then perform the required actions so that the provider can provide the needed services to the**

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candidate, wherein the execution of the service for the candidate by the provider, e.g., providing storage services and/or completing the migration, is considered to be the settlement of the request.).

16. In regards to **claims 10 and 22, Chambliss** discloses wherein migrating the CEEC data structure from the seller to the buyer comprises nullifying the CEEC data structure on the seller and creating a new CEEC data structure on the buyer (**Col. 2 Lines 43 – 67; Col. 4 Lines 47 – 64; Col. 6 Lines 11 – 17 wherein the provider/seller is able to determine whether the candidate/buyer/contracting party can be serviced by performing an analysis, as discussed above, which takes into account computing resources that the seller is not utilizing, i.e. available computing resources, and must further determine whether the available computing resources would be available to meet the needs of the requesting candidate while ensuring the QoS of all candidates are being/will be met. In other words, “nullifying” on the seller’s end is nothing more than making the once available resource no longer available and where the fulfillment of the request results in the provider creating a new data structure for the buyer. To put it yet another way, the Examiner asserts that in order to fulfill the request of the candidate the provider must use the once available resources so that the request can be properly fulfilled, thereby requiring that the provider relinquish availability or nullify of the resource on the seller’s end so that a proper analysis can be carried out for future candidates.).**

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. **Claims 5 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chambliss et al. (US Patent 7,334,032 B2)** in view of **Chen et al. (US Patent 2005/0222885 A1)**.

19. In regards to **claims 5 and 17**, **Chambliss** discloses a system and method for the determination of whether a resource provider would be able to determine whether SLA requirement would be met for a plurality of candidates that it is currently serving, as well as those who are seeking the service. **Chambliss** discloses that the system performs a series of calculations and processes in order to determine whether the workload can be handled and, if so, would the workload affect the QoS of all the candidates. Although **Chambliss** discloses the creation, use, and compliance of SLA, **Chambliss** does not explicitly disclose the use of a user interface for generating the SLA and its terms, as well as a management system interface.

To be more specific, **Chambliss** fails to explicitly disclose:

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wherein the transaction specification is generated by a user via a transaction builder user interface, and wherein the user specifies the business objective criteria via the transaction builder user interface.

However, **Chen** discloses that it is old and well known in the art of resource management and allocation that it is old and well known in the art to provide a graphical user interface that allows for management of resource allocation and monitoring of SLA's. To be more specific, **Chen** discloses that it is old and well known in the art to provide an interface that would allow a user to generate the SLA and its terms so as to provide the service provider with a set of requirements that it can refer to in order to determine whether the terms of the agreement are being met, which, as discussed by **Chambliss**, can be used to determine whether penalties should be assessed. One of ordinary skill in the art would have found it obvious for the system of **Chambliss** to include the interface management system of **Chen** so as to provide a means for the contracting party/service provider to generate the SLA. One of ordinary skill in the art would have found it obvious that an SLA does not simply generate itself, but that they are generated based on requirements provided by a customer and that a user interacts with the interface so as to input the received requirements in order to generate, manage, monitor, and/or optimize and SLA.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the resource management and allocation system of **Chambliss** with the interface management system of **Chen** since the claimed invention is merely a combination of old elements, and in the combination each element

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merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable since in order to have an SLA it must first be generated by a user who is able to interact with a graphical user interface that the system is then able to use to ensure that requirements are being met.

20. **Claims 11 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chambliss et al. (US Patent 7,334,032 B2)**.

21. In regards to **claims 11 and 23**, **Chambliss** discloses a system and method for the determination of whether a resource provider would be able to determine whether SLA requirement would be met for a plurality of candidates that it is currently serving, as well as those who are seeking the service. **Chambliss** discloses that the system performs a series of calculations and processes in order to determine whether the workload can be handled and, if so, would the workload affect the QoS of all the candidates. Although **Chambliss** discloses that a plurality of candidates are being handled by the system, **Chambliss** does not explicitly disclose the use of identifiers.

To be more specific, **Chambliss** fails to explicitly disclose:

wherein migrating the CEEC data structure from the seller to the buyer comprises resetting an identifier in the CEEC data structure to identify the buyer.

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Despite this, the Examiner asserts that one of ordinary skill in the art of resource allocation and management would have found it obvious that each candidate, computing resource, and/or customer that is being serviced must obviously be assigned some type of identifier in order to differentiate the plurality of candidates. Further still, one of ordinary skill in the art would have found such a feature to be obviously included because the system is monitoring and attempting to comply with a plurality of requirements found within a plurality of different SLA, wherein each SLA is for a corresponding candidate. The Examiner asserts that it would have been obvious to assign an identifier to each candidate in the system so as to determine whether or not the QoS is being met for each customer and to determine which resources would be affected if an additional candidate is accepted. **Chambliss** discloses that each client, i.e. candidate, has a set of requirements outlined in an SLA that defines the QoS that they should receive and that the system monitors the workload of each of its clients so as to determine whether those requirements are being met. One of ordinary skill in the art would have found it obvious that it would be difficult, if not impossible, to determine whether the QoS is being met if identifiers were not being used because it would not be possible to identify those clients. In other words, it is not possible to determine or prove that a client's QoS is not being met because, without an identifier, it would not be possible to identify the client.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

22. **Claims 12 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chambliss et al. (US Patent 7,334,032 B2)** in view of **Souder et al. (US Patent 7,516,221 B2)**.

23. In regards to **claims 12 and 24**, **Chambliss** discloses a system and method for the determination of whether a resource provider would be able to determine whether SLA requirement would be met for a plurality of candidates that it is currently serving, as well as those who are seeking the service. **Chambliss** discloses that the system performs a series of calculations and processes in order to determine whether the workload can be handled and, if so, would the workload affect the QoS of all the candidates. Although **Chambliss** discloses that a plurality of candidates are being handled by the provider, **Chambliss** does not explicitly disclose whether the candidates can be handled by other or additional providers.

To be more specific, **Chambliss** fails to explicitly disclose:

wherein the CEEC data structure represents a sub-portion of a CEEC between the contracting party and the provider, wherein the sub-portion defines a sub-portion of the terms of the CEEC that are able to be satisfied by computing resources provided by the provider, and wherein other sub-portions of the terms of the CEEC are satisfied by other computing resources provided by other providers.

However, **Souder**, which is similar to **Chambliss** in that it is also directed towards resource allocation, discloses that it is old and well known in the art of grid

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computing, a type of technology directed towards resource allocation, discloses that it is old and well known in the art to pull resources from a plurality of different locations, i.e. providers (**note that a provider/seller are not people, but computing resources, as discussed above**) in order to meet that demands of a particular computing resource. Similar to **Chambliss**, **Souder** discloses that it is old and well known in the art to determine available resources, but further discloses to remove the available resource and reassign it to the particular resource whose demand is increasing. **Souder** discloses that the levels of performance and resource availability for a particular service are referred to as service level agreements (SLA). As discussed by **Chambliss**, the SLA of **Souder** is also used in order to determine how many resources can be allocated. (**Support can be found Abstract; Page 1 ¶ 17; Pages 4 – 5 ¶ 57 – 63; Page 5 ¶ 65, 70**)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the resource allocation management technology of **Souder** in the technology of **Chambliss** in order to create a more robust resource allocation system that could allow for better servicing of candidates and increase the number of candidates that the system could handle by incorporating the methodology of “pulling” resources from other computing resources in order to meet the demands of a particular computing resource, so long as the QoS of the candidates are still being met.

Response to Arguments

24. Applicant's arguments filed **9/9/2013** have been fully considered but they are not persuasive.

Rejection under 35 USC 101

25. The rejection under 35 USC 101 has been **maintained**. Although the applicant has stated that ¶ **39 and 40** of the applicant's specification states:

"A computer readable storage medium may be, for example, but not limited to, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, device, or any suitable combination of the foregoing."

...

"A computer readable signal medium may be any computer readable medium that is not a computer readable storage medium and that can communicate, propagate, or transport a program for use by or in connection with an instruction execution system, apparatus, or device."

the Examiner asserts that this is insufficient to overcome the rejection, especially with the manner in which ¶ **39 – 41** have defined what a "storage medium" can be.

First, ¶ **39** explicitly states that the storage medium ***is not limited*** to the list provided in the specification.

Second, ¶ **39** explicitly states that the storage medium ***may be*** optical, electromagnetic or infrared system, apparatus, device, or combination of the foregoing.

These two features are important distinctions that must be made in order to illustrate that the storage medium is not limited to what the applicant is attempting to argue. That is to say, the applicant has provided an open-ended list of what a storage medium can be. As a result, although ¶ **40** states that the signal medium is not a

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storage medium, it is asserted that at no point has the applicant stated that a storage medium is not a signal medium. This is important because one of ordinary skill in the art, based on the state of the art, would have found that a storage medium can encompass signals. Some examples can be found in the following US PGPubs:

Yr. Filed	para	PGPub	Quote
2003	33	20110171948	a data signal embodied in a carrier wave (e.g., in a network including the Internet) can be the computer readable storage medium
2002	60	20100115149	computer readable storage medium may also encompass data signals embodied in a carrier wave
2003	166	20080077710	Another example of a computer-readable storage medium is a signal that carries software across a network
2004	41	20070162820	The computer-readable storage medium includes a magnetic storage medium, and optical storage medium, and a carrier wave medium
2002	199	20060242241	a data signal embodied in the carrier wave (e.g., in a network including the Internet) can be the computer readable storage medium

Next, ¶ 39 states:

“In the context of this document, a computer readable storage medium may be any tangible medium that can contain or store a program for use by or in connection with an instruction execution system, apparatus, or device.”

Careful attention needs to be made with regards to the phrasing of this sentence.

Specifically, the sentence states that the storage medium **may be any tangible medium** and that it can store **or contain** a program for use or **in connection** with a system, apparatus, or device. First, *In re Nuigten* states that simply adding “physical” or “tangible” are insufficient and further because “tangible” is understood to be simply stating that it exists in the real world and has tangible causes and effects. That is to say, the transient electric or electromagnetic transmission is man-made and physical-it exists in the real world and has tangible causes and effects-but was found not to qualify as a manufacture, or any of the other statutory categories. Second, the applicant states that the medium can be **contained**. As a result, the Examiner asserts that it would

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have been understood that a signal can contain the information, such as a propagation wave over a cable. Third, the applicant states that the medium is in connection with the system, apparatus, or device. As a result, a signal containing the medium to be received by the system, apparatus, or device reads on this interpretation.

Next, ¶ 40 states:

“A computer readable signal medium may include a propagated data signal with computer readable program code embodied therein, for example, in a baseband or as part of a carrier wave. Such a propagated signal may take any of a variety of forms, including, but not limited to, electro-magnetic, optical, or any suitable combination thereof.”

Here, the Examiner asserts that the signal has been equated to electromagnetic and optical, which is similar to what the applicant has stated that a storage medium may be as well. Given with what was stated above regarding the storage medium being defined as an open-ended list of examples it would have been understood that the applicant has stated that the storage medium can also include signals. Again, the Examiner asserts that simply stating that the signal medium is not a storage medium does not result in the storage medium not being able to be a signal medium.

Finally, ¶ 41 states the code embodied on the medium may be transmitted using a variety of different technologies, but equates these technologies, i.e. wireless and RF, as being mediums, as well. As a result, this further supports that conclusion that the applicant has defined that a medium, whether storage or not, can be broadly understood to be comprised of signals, especially given the analysis regarding the last sentence of ¶ 39 that was discussed above.

Therefore, the rejection has been **maintained**.

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Rejection under 35 USC 102

Claims 1, 13, and 25

26. The Examiner asserts that the applicant's arguments are directed towards **Chambliss** not teaching or using the terminology of the claimed invention. To be more specific, the Examiner asserts that the applicant's arguments are directed to **Chambliss** not using "computing environment entitlement contract" or "CEEC".

Specifically, the applicant argues:

"Nothing in the Chambliss reference is equivalent to the CEED data structure recited in the independent claims or the marketplace ideas of buyers of CEED data structures, sellers of CEED data structures, the migration of a CEED data structure from seller to buyer, or the control of workloads at the buyer based on a migrated CEED data structure, as recited in the independent claims."

"It is not necessary to address each and every one of the cited sections of Chambliss since the Examiner's own statements as to what these sections allegedly teach is illustrative of the fact that Chambliss does not teach a CEEC data structure as specifically recited in the present independent claims. That is, the Examiner is clearly taking the teaching of an SLA in these sections of Chambliss to be allegedly equivalent to Applicants' claimed CEEC data structure, which it is not. Thus, this basic misconception permeates the remainder of the allegations made in the Office Action based on this misconception that an SLA is somehow equivalent to the claimed CEEC data structure."

"The SLA of Chambliss, and SLAs in general, do not put requirements on the contracting party as to the purpose for which the contracting part must use a service or that the contracting party must use the service for a specified purpose at a specified level and pattern of intensity for a specified period of time."

"In other words, the purpose of the CEEC data structure in the present claims is to control the way in which contracting parties must use their allocated computing resources allocated to them by the provider. SLAs on

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the other hand merely state that the service provider must provide a certain level of service to the contracting party, in other words, while the CEEC data structure may specify a contract between a user and a provider, rather than merely specifying the level of service guaranteed to a user if the user performs certain actions, the CEEC data structure specifies the burdens placed on the user with regard to the specified purpose for which the user must use the computing resources and that usage of the computer resources for the specified purpose must be at a specified level and pattern of intensity for a specified period of time. SLAs do not specify any such burdens on the contracting party as in the presently claimed invention and thus, the recitation of SLAs in Chambliss is not sufficient to anticipate this feature in the present independent claims.”

“Since Chambliss does not teach the CEEC data structure for the reasons set forth above, Chambliss cannot further teach or even render obvious, the additional features of the independent claims directed to identifying a seller of a CEEC data structure, identifying a buyer of a CEEC data structure, migrating the CEEC data structure from the seller to the buyer, and executing workloads in accordance with terms specified in the CEEC data structure at the buyer after migrating the CEEC data structure from the seller to the buyer, wherein the seller and the buyer are computing resources or collections of computing resources. In other words, the claims clearly recite that the buyer and seller are computing resources or collections of computing resources that are buyers/sellers of CEEC data structures. Thus, a marketplace for CEEC data structures is recited in the independent claims.”

“The Examiner's own statements about what the Examiner believes to be equivalent to buyers and sellers in Chambliss is evidence that Chambliss does not teach or suggest these features since the Examiner alleges that the buyer and seller are merely computing resources for which a determination is made as to whether the computing resources can service a candidate workload or not (see Office Action, pages 4-5). This does not address the actual buying or selling of CEEC data structures. ... Thus, if Chambliss were to allegedly teach the buyers and sellers recited in the present independent claims under the Examiner's interpretation, then Chambliss must teach that the buyers and sellers are buyers and sellers of SLAs. Nowhere in Chambliss is there any such teaching or even suggestion. To the contrary, Chambliss is merely concerned with whether a current storage system is able to handle an approximated or proxy workload or not with its current configuration. There is no buying or selling

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of any SLAs, let alone a CEEC data structure (which is not equivalent to an SLA for the reasons previously discussed above).”

“Nothing in any of these cited sections, or any other sections, of Chambliss teaches a buyer of a CEEC data structure, a seller of a CEEC data structure, or the migration of a CEEC data structure from a seller to a buyer, as recited in the independent claims.”

“This is exemplary of what Applicants have been arguing above - Chambliss is concerned with determining whether an existing storage system can handle a new workload or not; not a marketplace for a CEEC data structure as recited in the present independent claims. Nothing in this section of Chambliss teaches or suggests CEEC data structure buyers, sellers, or the migration of a CEEC data structure from a seller to a buyer as recited in the independent claims.”

“All these sections of Chambliss teach is what Applicants have said Chambliss teaches, i.e. a mechanism for determining if a new workload can be handled by an existing storage system configuration while still providing a desired QoS. There is no teaching or suggestion of anything that is equivalent to a CEEC data structure as it is defined in the present claims, i.e. providing the five elements discussed above. There is no teaching of identifying a buyer or a seller of such a CEEC data structure, and there certainly is no teaching or suggestion to migrate such a CEEC data structure from a seller to a buyer. Even if one were to try and equate the SLA of Chambliss with a CEEC data structure, which is improper since they are not equivalent for the reasons set forth above, Chambliss does not teach or suggest any identification of a seller of a SLA, identification of a buyer of a SLA, or the migration of a SLA from a seller to a buyer.”

“In addition to the above, nothing in Chambliss teaches or even suggests executing workloads in accordance with terms specified in the CEEC data structure at the buyer after migrating the CEEC data structure from the seller to the buyer. Since Chambliss does not teach or suggest migrating a CEEC data structure from a seller to a buyer, Chambliss cannot teach the execution of workloads in accordance with the terms specified in the CEEC data structure at the buyer after such a migration. The Office Action cites similar sections of Chambliss as already addressed above as allegedly teaching these features. However, as noted above, these sections merely teach the evaluation of an approximate or proxy workload

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with regard to the current configuration of the storage system and a desired QoS to determine if the workload can be accepted by the storage system, i.e. that the storage system can provide the necessary resources for handling the workload. There is nothing in Chambliss that teaches or suggests CEEC data structures, buyers, sellers, migration of CEEC data structures, or the execution of a workload in accordance with terms of a migrated CEEC data structure at the buyer after the migration is done.”

However, the Examiner respectfully disagrees.

In order to demonstrate that **Chambliss** does, indeed, teach the features of the claimed invention in an equivalent manner, the Examiner must first take a step back and clarify what “CEEC” actually is, based on the applicant’s own specification.

First, the Examiner will be referring to ¶ 7, 26, and 27 of the **applicant’s specification**, which states:

“The method comprises generating, by the at least one computing device, one or more computing environment entitlement contract (CEEC) data structures, each **CEEC data structure defining terms of a business level agreement between a contracting party and a provider of the data processing system.** The terms of the CEEC **specify a set of computing resources**”

“With the mechanisms of the illustrative embodiments, **CEECs are established for each pairing of a contracting party with one or more computing resources of an organization**, typically a large scale organization having hundreds or even thousands of computing resources of various types, configurations, capabilities, uses, and the like. **The CEECs are used as a basis for pairing contracting parties with appropriate computing resources, evaluating a contracting party’s utilization of the computing resources with which the contracting party is associated, re-allocating contracting parties to appropriate computing resources dynamically, matching buyers and sellers of CEECs in a market maker environment, and performing other computing resource management operations as described hereafter.**”

“The CEEC is an explicit agreement that a given contracting party, e.g., a person, group, department, division, company, or the like, will use a given set of one or more computing resources (e.g.,

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hardware and/or software resources), configured in a given way (thus defining a computing environment) for a given business purpose, at a given level and pattern of intensity of utilization, for a period of time.

As can be clearly seen, the Examiner asserts that a "CEEC", i.e. computing environment entitlement contract, is nothing more than a title or label that has been assigned to this particular contractual agreement between two parties. The Examiner asserts that "CEEC **data structure**" is nothing more than a file that contains the terms and agreements of the CEEC, i.e. the computing resources that are agreed to be provided by a requesting entity. To be more specific, as is currently claimed and explicitly stated in the specification, this particular type of contract is comprised of terms that dictate the pairing of a first entity with appropriate computing resources, i.e. computing resource management. In other words, the Examiner asserts that this is equivalent to the SLA, i.e. service level agreement, of **Chambliss** since **Chambliss**, too, discloses that the SLA contains terms that dictate the management of computing resources. To be more specific, the SLA dictates the allocation of computing resources based on the needs that the associated entities have agreed to be provided and needed. As a result, the Examiner asserts that, contrary to the applicant's argument on **Page 12, last paragraph, first line**, that **Chambliss** is, indeed, directed towards solving the same program and performing the same sort of process as the presently claimed invention. That is to say, the claimed invention has disclosed in the first limitation the process of generating a particular contract type that has been labeled as a "CEEC" contract type, wherein the terms of this particular contract dictates an agreement between two entities that specify a set of computing resources, e.g.,

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hardware and/or software resources), that are to be used by a contracting party, i.e. buyer.

In regards to the entities involved in this agreement, the Examiner asserts that the claim has explicitly stated that they are nothing more than computing resources or collection of computing resources. In other words, the buyer and seller are not actual people, but computing resources or collections of computing resources. As a result, this further proves the fact that **Chambliss** is further disclosing the same claimed invention because the entities involved in this particular transaction, i.e. migration of computing resources, are computers that are in communication with one another and determine when resources should be reallocated per the terms of the contract, i.e. SLA. Further, the Examiner asserts that the label that has been used to identify identifying the computing resources or collection of computing resources as “buyer/seller” is a label for the items and adds little, if anything, to the claimed acts or steps and thus does not serve to distinguish over the prior art. Any differences related merely to the meaning and information conveyed through labels which does not explicitly alter or impact the steps of the method does not patentably distinguish the claimed invention from the prior art in terms of patentability, especially when there is absolutely no claim to actually buying or selling.

This is clearly evident based on the citations and corresponding explanations provided in the rejection above. That is to say, **Chambliss** discloses a system and method for the determination of whether a resource provider would be able to determine whether an SLA requirement would be met for a plurality of candidates that it is

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currently serving, as well as those who are seeking the service. **Chambliss** discloses that the system performs a series of calculations and processes in order to determine whether the workload can be handled and, if so, would the workload affect the QoS of all the candidates, thereby determining what resources would need to be allocated in order to meet those demands in accordance with the terms set forth by the SLA.

Second, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., 1) **"A Service Level Agreement (SLA) that sets forth a Quality of Service is not equivalent to a CEEC data structure because SLAs do not set forth the five elements of a CEEC data structure as specifically recited in the independent claims and mentioned above."**; 2) **"The SLA of Chambliss, and SLAs in general, do not put requirements on the contracting party as to the purpose for which the contracting party must use a service or that the contracting party must use the service for a specified purpose at a specified level and pattern of intensity for a specified period of time."**; 3) In other words, the purpose of the CEEC data structure in the present claims **is to control the way in which contracting parties must use their allocated computing resources allocated to them by the provider.**"; 4) "In other words, while the CEEC data structure may specify a contract between a user and a provider, rather than merely specifying the level of service guaranteed to a user if the user performs certain actions, **the CEEC data structure specifies the burdens placed on the user with regard to the specified purpose for which the user must use the computing resource for the specified**

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purpose must be at a specified level and pattern of intensity for a specified period of time. SLAs do not specify any such burdens on the contracting party as in the presently claimed invention and thus, the recitation of SLAs in Chambliss is not sufficient to anticipate this feature in the present independent claims.”; 5) :In other words, the claims clearly recite that the buyer and seller are computing resources or collections of computing resources that are buyers/sellers of CEEC data structures. **Thus, a marketplace for CEEC data structures is recited in the independent claims.**”; 6) “The Examiner's own statements about what the Examiner believes to be equivalent to buyers and sellers in Chambliss is evidence that Chambliss does not teach or suggest these features since the Examiner alleges that the buyer and seller are merely computing resources for which a determination is made as to whether the computing resources can service a candidate workload or not (see Office Action, pages 4-5). **This does not address the actual buying or selling of CEEC data structures.**”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Specifically:

- 1) the Examiner asserts that the independent claims have absolutely no disclosure with regards to “five elements”;
- 2) the Examiner asserts that the independent claims have absolutely no disclosure with regards to “requirements on the contract party”;

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3) the Examiner asserts that the independent claims have absolutely no disclosure with regards to controlling “the way in which contracting parties must use their allocated computing resources allocated to them by the provider”;

4) the Examiner asserts that the independent claims have absolutely no disclosure with regards to specifying “the CEEC data structure specifies the burdens placed on the user with regard to the specified purpose for which the user must use the computing resource for the specified purpose must be at a specified level and pattern of intensity for a specified period of time”;

5) the Examiner asserts that the independent claims have absolutely no disclosure with regards to a marketplace; and

6) Examiner asserts that the independent claims have absolutely no disclosure with regards to the “actual buying or selling of CEEC data structures.”

On the contrary, the Examiner asserts that the claimed invention merely states the following:

A) generating, by the at least one computing device, one or more computing environment entitlement contract (CEEC) data structures, each CEEC data structure defining terms of a business level agreement between a contracting party and a provider of the data processing system, wherein the terms of the CEEC specify a set of computing resources having a specified configuration, and further specify that the set of computing resources are to be used by the contracting party for a specified purpose at a specified level and pattern of intensity for a specified period of time

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a) In other words, generating a contract that includes terms that dictate the set of computing resources needed by the contracting party, wherein the set of computing resources must be able to meet a specified purpose at a specified level and pattern of intensity for a specified period of time as indicated by the contracting party;

B) associating, by the at least one computing device, the one or more CEEC data structures with a computing resource cohort, wherein the computing resource cohort is a collection of computing resources having similar configurations

b) In other words, associating or linking the contract with a computing resource entity (**Note, ¶ 8 of the applicant's specification and the claimed limitation have defined a computing resource cohort as "a collection of computing resources having similar configurations"**);

C) identifying, by the at least one computing device, a seller of a CEEC data structure, in the one or more CEEC data structures; and identifying, by the at least one computing device, a buyer of a CEEC data structure, in the one or more CEEC data structures;

c) In other words, and as per the last limitation of **claim 1**, identifying the computing resources or collection of computing resources, i.e. cohorts, that corresponds to the contract.

D) migrating the CEEC data structure from the seller to the buyer;

d) migrating, transferring, and/or etc. the data structure from one system to another so that the information of each contract can then later be used to

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monitor the workloads of the system and be used to determine whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA

E) executing workloads in accordance with terms specified in the CEEC data structure at the buyer after migrating the CEEC data structure from the seller to the buyer, wherein the seller and the buyer are computing resources or collections of computing resources;

e) In other words, the provider/seller, must adhere to the terms of the SLA in order to avoid any penalties for all candidates that the provider has accepted to provide service to.

As is clearly evident, the Examiner asserts that nowhere do the points raised by the applicant above can be found in the currently presented claims.

As a result, the Examiner asserts that aside from not using the same exact claim terminology, i.e. CEEC, **Chambliss** does, indeed, teach an equivalent data structure and corresponding contract type to that of the claimed invention and further teaches the identification of data structure buyers and sellers and the migration of data structures from a seller to a buyer, as discussed in the rejection above.

In regards to “executing workloads in accordance with terms specified” in the contract and associated data structures “after migrating” the “data structure from the seller to the buyer”, the Examiner asserts that the basis for this argument is, once again,

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directed towards **Chambliss** not teaching a "CEEC" data structure. However, as established in the remarks provided above and the provided rejection, **Chambliss** does, indeed, teach these features and further discusses wherein the provider/seller, must adhere to the terms of the SLA in order to avoid any penalties for all candidates that the provider has accepted to provide service to, wherein the invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA.

Finally, touching more to what has already been discussed above with regards to labels, the Examiner asserts that simply labeling the data structure as a "CEEC" data structure results in adding little, if anything, to the claimed acts or steps and thus does not serve to distinguish over the prior art. Any differences related merely to the meaning and information conveyed through labels which does not explicitly alter or impact the steps of the method does not patentably distinguish the claimed invention from the prior art in terms of patentability, especially when there is no positive recitation of the terms actually being enacted on or, to put it another way, how these specific terms are affecting the actual steps of generating a contract/data structure, associating the contract/data structure with the corresponding entities, migrating the contract/data

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structure from one entity to another, and executing the workloads in accordance to the terms of the contract/data structure. The Examiner asserts that given the broad nature of the claimed invention any type of contract and/or terms would result in the same or equivalent invention since when a contract has been agreed to the resulting actions must correspond to the terms of the contract. This process is the same regardless of what the terms are or what the contract is labeled as. The Examiner asserts that, as currently presented, the terms of the contract are nothing more than non-functional descriptive material, i.e. the terms of the contract are not being used in a manner that functionally alter the steps of generating a contract/data structure, associating the contract/data structure with the corresponding entities, migrating the contract/data structure from one entity to another, and executing the workloads. MPEP 2112.01 III states the following and further supports the Examiner's position:

"Where the only difference between a prior art product and a claimed product is printed matter that is not functionally related to the product, the content of the printed matter will not distinguish the claimed product from the prior art. *In re Ngai*, ** > 367 F.3d 1336, 1339, 70 USPQ2d 1862, 1864 (Fed. Cir. 2004) < (Claim at issue was a kit requiring instructions and a buffer agent. The Federal Circuit held that the claim was anticipated by a prior art reference that taught a kit that included instructions and a buffer agent, even though the content of the instructions differed.). See also *In re Gulack*, 703 F.2d 1381, 1385-86, 217 USPQ 401, 404 (Fed. Cir. 1983)("Where the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability...[T]he critical question is whether there exists any new and unobvious functional relationship between the printed matter and the substrate.")."

Claims 2 and 14

27. The Examiner asserts that a seller "not being utilized in accordance with the terms specified in the CEEC data structure" is not the same as the seller "not abiding by

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the requirements of the CEEC data structure.” The Examiner asserts that the claimed limitation, in the broadest reasonable interpretation, is directed towards simply identifying the seller computing resource not being utilized and is not directed toward towards the seller computing resource not abiding by the requirements. **Chambliss** teaches the provider/seller is able to determine whether the candidate/buyer/contracting party can be serviced by performing an analysis, as discussed above, which takes into account computing resources that the seller is not utilizing, i.e. available computing resources, and must further determine whether the available computing resources would be available to meet the needs of the requesting candidate while ensuring the QoS of all candidates are being/will be met.

Claims 3 and 15

28. The Examiner asserts that the applicant’s arguments are based on those that were presented for **claims 1, 13, and 25**, specifically in regards to those that were directed towards **Chambliss** not teaching “CEEC” data structures. With that said, the Examiner refers to the discussions provided above.

Claims 4 and 16

29. The Examiner asserts that the applicant’s arguments are based on those that were presented for **claims 1, 13, and 25**, specifically in regards to those that were directed towards **Chambliss** not teaching “CEEC” data structures. With that said, the Examiner refers to the discussions provided above.

30. The applicant further argues:

“None of these sections teach or even suggest the determination of whether to migrate a CEEC data structure based on ***business objective***”

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criteria specified in a transaction specification. Furthermore, none of these sections of Chambliss teach ***migrating the CEEC data structure*** from the seller to the buyer ***only in response to a determination that the migration of the CEEC data structure satisfies the business objective criteria specified in the transaction specification.***”

However, the Examiner respectfully disagrees.

As discussed in the rejection, and further taking into account the discussions provided above, **Chambliss** teaches that invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for all candidates will not suffer or go below an established an agreed upon threshold established in the SLA. The Examiner asserts that the labels assigned to the computing resources or collection of resources, i.e. seller and buyer, are simply that, labels, as was discussed above. The Examiner asserts that the responsibilities, functions, processes, and etc. that are being performed by these two entities are the same as those of **Chambliss**.

Claims 6 and 18

31. The Examiner asserts that the applicant's arguments are based on those that were presented for **claims 4 and 16**. With that said, the Examiner refers to the discussions provided above.

Claims 7 and 19

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32. The applicant further argues:

“As with claims 4 and 16 and 6 and 18, there is no teaching anywhere in Chambliss of a transaction specification, let alone a transaction specification that specifies business objective criteria, and that the operations of the claims are performed in accordance with business objective criteria.”

However, the Examiner respectfully disagrees

In addition to what has already been discussed above, the Examiner asserts that **Chambliss** further teaches wherein the analysis to determine whether the requesting candidate should be serviced/added the system (provider) must first identify/associate the computing resources of the provider/seller and the computing resources of the user/contracting party/buyer. To put it another way, the Examiner asserts that the “seller” and “buyer” of the claimed invention are not individuals, but “computing resources or collections of computing resources”, thereby resulting in the scenario that by associating the computing resource one is also identifying the buyer/seller and vice-versa since in order to carry out the analysis the two computing resources must be known, as well as the configurations of each computing resource in order to determine whether the candidate (computing resource) can be added/serviced by the provider, as discussed above. Further still, the invention can be used for the migration of the CEEC data structures from one system to another, i.e. seller to buyer, so that the information of each SLA can then later be used to monitor the workloads of the system and be used to determine whether the QoS is being met by the system and whether the system is capable of adding additional candidates based on the SLA of those additional candidates all the while ensuring that if the additional candidates are added the QoS for

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all candidates will not suffer or go below an established an agreed upon threshold established in the SLA.

Claims 9 and 21

33. The applicant further argues:

“As with claims 4 and 16 and 6 and 18, there is no teaching anywhere in Chambliss of a transaction specification, let alone a transaction specification that specifies business objective criteria, and that the operations of the claims are performed in accordance with business objective criteria.”

However, the Examiner respectfully disagrees.

In addition to what has already been discussed above, the Examiner asserts that in regards to “*wherein migrating the CEEC data structure from the seller to the buyer is performed in accordance with the instance of the transaction specification*” the Examiner asserts that this has been discussed above. In regards to the four transaction phases, the Examiner asserts that this is inherently included and discussed in **Chambliss**, albeit not using the same terminology. However, the Examiner asserts that the use of different terminology to explain an equivalent/same process is insufficient to distinguish **Chambliss** from the claimed invention. With that said, the Examiner points to the following sections of **Chambliss**: **Col. 1 Lines 7 – 11, 22 – 40; Col. 2 Lines 43 – 67; Col. 3 – 5 Lines 1 – 14; Col. 6 – 7 Lines 49 – 10** where **Chambliss** outlines a very detailed process where a candidate requests for services, in this case storage/migration services, to be provided by a provider, wherein satisfaction of the service is based on the terms of the SLA that outline the QoS that must be met by the provider. The provider then performs an analysis of the current workload, availability, and workload of

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the requesting candidate in order to determine whether the requesting candidate can be added. If the provider determines that the requirements can be satisfied the provider and candidate then perform the required actions so that the provider can provide the needed services to the candidate, wherein the execution of the service for the candidate by the provider, e.g., providing storage services and/or completing the migration, is considered to be the settlement of the request.

Rejection under 35 USC 103

Claims 5, 17, 11, 23, 12, and 24

34. The Examiner asserts that the applicant's arguments are based on those that were presented for **claims 1, 13, and 25**. With that said, the Examiner refers to the discussions provided above.

35. In regards to **claims 12 and 25**, the Examiner asserts In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

36. Specifically, the Examiner states that **Chambliss** discloses a system and method for the determination of whether a resource provider would be able to determine whether SLA requirement would be met for a plurality of candidates that it is currently serving, as well as those who are seeking the service. **Chambliss** discloses that the system performs a series of calculations and processes in order to determine whether the workload can be handled and, if so, would the workload affect the QoS of all the

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candidates. Although **Chambliss** discloses that a plurality of candidates are being handled by the provider, **Chambliss** does not explicitly disclose whether the candidates can be handled by other or additional providers.

To be more specific, **Chambliss** fails to explicitly disclose:

wherein the CEEC data structure represents a sub-portion of a CEEC between the contracting party and the provider, wherein the sub-portion defines a sub-portion of the terms of the CEEC that are able to be satisfied by computing resources provided by the provider, and wherein other sub-portions of the terms of the CEEC are satisfied by other computing resources provided by other providers.

However, **Souder**, which is similar to **Chambliss** in that it is also directed towards resource allocation, discloses that it is old and well known in the art of grid computing, a type of technology directed towards resource allocation, discloses that it is old and well known in the art to pull resources from a plurality of different locations, i.e. providers (**note that a provider/seller are not people, but computing resources, as discussed above**) in order to meet that demands of a particular computing resource. Similar to **Chambliss**, **Souder** discloses that it is old and well known in the art to determine available resources, but further discloses to remove the available resource and reassign it to the particular resource whose demand is increasing. **Souder** discloses that the levels of performance and resource availability for a particular service are referred to as service level agreements (SLA). As discussed by **Chambliss**, the SLA of **Souder** is also used in order to determine how many resources can be

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allocated. (**Support can be found Abstract; Page 1 ¶ 17; Pages 4 – 5 ¶ 57 – 63; Page 5 ¶ 65, 70**)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the resource allocation management technology of **Souder** in the technology of **Chambliss** in order to create a more robust resource allocation system that could allow for better servicing of candidates and increase the number of candidates that the system could handle by incorporating the methodology of “pulling” resources from other computing resources in order to meet the demands of a particular computing resource, so long as the QoS of the candidates are still being met.

Conclusion

37. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to GERARDO ARAQUE JR whose telephone number is (571)272-3747. The examiner can normally be reached on Monday - Friday 9:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janice Mooneyham can be reached on (571) 272-6805. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gerardo Araque Jr./
Primary Examiner, Art Unit 3689
11/5/2013



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/171,558	06/29/2011	Patrick J. O'Sullivan	AUS920110252US1	5744

87220 7590 02/16/2017
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EXAMINER

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ART UNIT	PAPER NUMBER
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3689

MAIL DATE	DELIVERY MODE
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02/16/2017

PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PATRICK J. O’SULLIVAN and JAMES C. THORBURN

Appeal 2014-007269
Application 13/171,558
Technology Center 3600

Before ANTON W. FETTING, BIBHU R. MOHANTY, and
JAMES A. WORTH, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Patrick J. O’Sullivan and James C. Thorburn (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1–25, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

¹ Our decision will make reference to the Appellants’ Appeal Brief (“App. Br.,” filed April 4, 2014) and Reply Brief (“Reply Br.,” filed June 19, 2014), and the Examiner’s Answer (“Ans.,” mailed April 23, 2014), and Final Action (“Final Act.,” mailed November 7, 2013).

The Appellants invented mechanisms for migrating computing environment entitlement contracts (CEEC) between a seller and a buyer using a CEEC market. Spec. para. 1.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

1. A method, in a data processing system comprising at least one computing device and a plurality of computing resources,

for migrating a computing environment entitlement contract from one computing resource to another,

comprising:

[1] generating, by the at least one computing device,

one or more computing environment entitlement contract (CEEC) data structures,

each CEEC data structure defining terms of a business level agreement between a contracting party and a provider of the data processing system,

wherein the terms of the CEEC

specify a set of computing resources having a specified configuration,

and

further specify that the set of computing resources are to be used by the contracting party for a specified purpose at a specified level and pattern of intensity for a specified period of time;

[2] associating, by the at least one computing device,

the one or more CEEC data structures

with

a computing resource cohort,

wherein the computing resource cohort is a collection of computing resources having similar configurations;

- [3] identifying, by the at least one computing device,
a seller of a CEEC data structure,
in the one or more CEEC data structures;
- [4] identifying, by the at least one computing device,
a buyer of a CEEC data structure,
in the one or more CEEC data structures;
- [5] migrating the CEEC data structure from the seller to the
buyer;
- and
- [6] executing workloads
in accordance with terms specified in the CEEC data
structure at the buyer
after migrating the CEEC data structure from the seller to
the buyer,
wherein the seller and the buyer are computing resources
or collections of computing resources.

The Examiner relies upon the following prior art:

Chen	US 2005/0222885 A1	Oct. 6, 2005
Chambliss	US 7,334,032 B2	Feb. 19, 2008
Souder	US 7,516,221 B2	Apr. 7, 2009

Claims 13–24 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1–4, 6–10, 13–16, 18–22, and 25 stand rejected under 35 U.S.C. § 102(b) as anticipated by Chambliss.

Claims 5 and 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chambliss and Chen.

Claims 11 and 23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chambliss.

Claims 12 and 24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Chambliss and Souder.

ISSUES

The issues of statutory subject matter turn primarily on whether a propagating signal is within the scope of the recited medium. The issues of novelty and obviousness turn primarily on whether Chambliss describes migrating a CEEC data structure between computers.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Facts Related to Claim Construction

01. The disclosure lexicographically defines, in the context of the Specification, a computer readable storage medium as any tangible medium that can contain or store a program for use by or in connection with an instruction execution system, apparatus, or device. Spec. para. 39

Facts Related to the Prior Art

Chambliss

02. Chambliss is directed to storage systems that service multiple workloads, each with potentially different quality of service (QOS) requirements, and more particularly to an improved system

for determining whether new workloads can be added to an existing system. Chambliss 1:7–11.

03. Chambliss describes how in storage systems that service multiple workloads, the multiple workloads may originate from different sources including different applications, different departments of a company, or from totally independent customers, as in the case of a Storage Service Provider (SSP). One issue in shared storage systems that provide service guarantees to existing workloads is how to determine whether a new workload that wants to be serviced by the storage system should be accepted for service or not. Chambliss 1:13–21.
04. Chambliss describes how the degree to which a shared storage system meets QOS requirements is usually evaluated using a contractual agreement called a Service Level Agreement (SLA). The SLA spells out the performance Service Level Guarantees (SLGs) that must be satisfied by the system. Chambliss 1:22–26.
05. Chambliss describes a multi-workload storage system adapted to service input/output requests. The storage system includes storage elements and a proxy load generator connected to the storage elements. The proxy load generator creates a proxy workload based on an additional workload from a potential client. The proxy workload has a reduced duty cycle when compared to a duty cycle of the additional workload. A control server is connected to the storage elements and the proxy load generator.

The control server applies the proxy workload to the storage elements during discontinuous time slices. Chambliss 1:48–58.

ANALYSIS

Claims 13–24 rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter

This is a rejection based on a transitory signal rather than abstract ideas. The claims at issue recite a computer readable storage medium. The Examiner finds a propagating signal is within the scope. Final Act. 2.

As Appellants contend, the Examiner ignores the lexicographic definition narrowing the scope of this limitation. App. Br. 5–6. Such a medium is defined as being tangible. As such, the lexicographic definition explicitly excludes intangible embodiments, such as signals.

Claims 1– 4, 6–10, 13–16, 18–22, and 25 rejected under 35 U.S.C. § 102(b) as anticipated by Chambliss

Independent claims 1, 13, and 25 each recite migrating the CEEC data structure from the seller computer to the buyer computer. We are persuaded by Appellants' argument that Chambliss fails to describe this.

The Examiner finds that the Chambliss service level agreement (SLA) is equivalent to the claimed CEEC. Final Act. 10. Chambliss has exactly four recitations regarding the SLA, none of which describe migrating it in the form of a data structure between computers.

Chambliss does migrate a proxy workload, but this is not described as having the data structure of the recited CEEC, and the Examiner did not find the workload to be the equivalent to the recited CEEC. The Examiner does

not make any finding as to which specific portion of Chambliss describes the recited migration, but instead finds that several limitations are generally described by several portions of Chambliss. *See* Final Act. 3–7 and Ans. 6–19. The Examiner’s finding at Answer 16 that Chambliss “teaches the identification of data structure buyers and sellers and the migration of data structures from a seller to a buyer” is particularly telling as the Examiner omits the essential reference to the CEEC itself. Thus, Chambliss fails to describe the recited migration and the Examiner has made no specific finding for us to further consider.

To the extent the Examiner finds that the content of the CEEC should be given no weight as being non-functional (Ans. 18), the final limitation in each independent claim recites a functional application of the CEEC content.

*Claims 5 and 17 rejected under 35 U.S.C. § 103(a) as unpatentable over
Chambliss and Chen*

These claims depend from claims 1 and 13.

*Claims 11 and 23 rejected under 35 U.S.C. § 103(a) as unpatentable over
Chambliss*

These claims depend from claims 1 and 13.

*Claims 12 and 24 rejected under 35 U.S.C. § 103(a) as unpatentable over
Chambliss and Souder*

These claims depend from claims 1 and 13.

CONCLUSIONS OF LAW

The rejection of claims 13–24 under 35 U.S.C. § 101 as directed to non-statutory subject matter is improper.

The rejection of claims 1–4, 6–10, 13–16, 18–22, and 25 under 35 U.S.C. § 102(b) as anticipated by Chambliss is improper.

The rejection of claims 5 and 17 under 35 U.S.C. § 103(a) as unpatentable over Chambliss and Chen is improper.

The rejection of claims 11 and 23 under 35 U.S.C. § 103(a) as unpatentable over Chambliss is improper.

The rejection of claims 12 and 24 under 35 U.S.C. § 103(a) as unpatentable over Chambliss and Souder is improper.

DECISION

The rejection of claims 1–25 is reversed.

REVERSED