UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte DANIEL C. BIRKESTRAND,
STEPHANIE L. JENSEN, and PAUL F. OLSEN[1]

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Appeal 2018-000931
Application 14/169,249[2]
Technology Center 2400

_____

Before ALLEN R. MacDONALD, JEREMY J. CURCURI, and
NABEEL U. KHAN, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

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STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a final rejection of

claims 1–11. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

Application 14/169,249 was filed January 31, 2014 as a continuation

of Application 14/160,313 filed January 21, 2014. 35 U.S.C. § 112 (AIA) is

applicable to any patent application filed on or after September 16, 2012.

Representative Claim

Representative claim 1 under appeal reads as follows (emphasis,

formatting, and bracketed material added):

> 1. A computer-implemented method for providing
> computing resources from a pool of a plurality of networked
> computing systems for use by one or more consumers, the
> method comprising:
>
> [A.] determining, using at least one hardware
> management controller coupled with the plurality of networked
> computing systems and comprising a processor, that resource
> usage of a consumer exceeds an initial amount of computing
> resources allocated to the consumer from one or more first
> computing systems from the pool, the initial amount of
> computing resources associated with a first cost scheme of a
> predetermined plurality of cost schemes;
>
> [B.] after an elapse of a predetermined period of time,
> and upon determining that the resource usage of the consumer
> continues to exceed the initial amount of allocated computing
> resources by an excess amount of resource usage:
>
>> [i.] selecting, based on a predetermined billing
>> policy and the excess amount of resource usage, a second
>> cost scheme of the plurality of cost schemes to be applied
>> to the excess amount of resource usage;

[ii.] *identifying*, using the processor, one or more second *computing systems* from the pool having capacity *available under the second cost scheme* to host at least a portion of the excess amount of resource usage; and

[iii.] allocating an additional amount of computing resources from at least one selected second computing system to meet the excess amount of resource usage;

[C.] transferring at least the excess amount of resource usage from the one or more first computing systems to the at least one selected second computing system, wherein transferring at least the excess amount of resource usage comprises *transmitting instructions from the at least one hardware management controller to* one of

[i.] (1) the one or more first computing systems and the at least one selected second computing system, and

[ii.] (2) one or more hypervisors associated with the one or more first computing systems and the at least one selected second computing system; and

[D.] determining, based on an associated cost of the additional amount of computing resources, whether to deallocate the additional amount of computing resources to the pool, *wherein the associated cost is determined based on the second cost scheme applied to the excess amount of resource usage*.

References

Lappas et al.	US 2009/0182605 A1	Jul. 16, 2009
Maclinovsky et al.	US 2011/0078705 A1	Mar. 31, 2011
Jackson	US 2012/0179824 A1	Jul. 12, 2012
Kirchhofer	US 2013/0014107 A1	Jan. 10, 2013

Rejections

A.

The Examiner rejected claims 1–8, 10, and 11 on the ground of nonstatutory obviousness-type double patenting as not being patentably distinct from claims 1–20 of copending Application 14/160,313. Final Act. 12.

"An appeal, when taken, is presumed to be taken from the rejection of all claims under rejection." 37 C.F.R. § 41.31(c). Because Appellants do not identify any error in Examiner's rejection of claims 1–8, 10, and 11 under non-obviousness-type double patenting, we summarily sustain this rejection in this proceeding. Except for our ultimate decision, we do not discuss this rejection of these claims further herein.

B.

1. The Examiner rejected claims 1–11 under 35 U.S.C. § 112(a), as failing to comply with the written description requirement. Final Act. 4–6.

We select claim 1 as representative.[3] Appellants argue separate patentability for claim 6, but do not argue such for claims 2–5 and 7–11. Except for our ultimate decision, we do not discuss this § 112(a) rejection of claims 2–5 and 7–11 further herein.

2. The Examiner rejected claims 1–11 under 35 U.S.C. § 112(a), as failing to comply with the written description requirement. Final Act. 6–10.

Appellants appeal and argue this second rejection under 35 U.S.C. § 112(a). App. Br. 14–15. However, because we do not find in the Answer

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[3] *See* 37 C.F.R. § 41.37(c)(1)(iv).

that the Examiner has addressed Appellants' arguments, and we are unable to determine a basis for this second rejection that does not overlap with the first rejection under 35 U.S.C. § 112(a), we summarily reverse this second rejection under 35 U.S.C. § 112(a).

C.

The Examiner rejected claims 1–11 under 35 U.S.C. § 112(b), as being indefinite. Final Act. 10–11.

We select claim 1 as representative. Appellants do not argue separate patentability for claims 2–11. Except for our ultimate decision, we do not discuss the § 112(b) rejection of claims 2–11 further herein.

D.

The Examiner rejected claims 1–11 under 35 U.S.C. § 101 "because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more." Final Act. 21. That is, because the claimed invention is directed to patent ineligible subject matter.

We select claim 1 as representative. Appellants do not argue separate patentability for claims 2–11. Except for our ultimate decision, we do not discuss the § 101 rejection of claims 2–11 further herein.

E.

The Examiner rejected claims 1–9 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kirchhofer, Lappas, and Jackson.

We select claim 1 as representative. Appellants argue separate patentability for claims 4–6. However, our decision as to the § 103 rejection of claim 1 is determinative for all claims under this § 103 rejection.

Therefore, except for our ultimate decision, we do not discuss the § 103 rejection of claims 2–9 further herein.

F.

The Examiner rejected claims 10 and 11 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kirchhofer, Lappas, Jackson, and Maclinovsky.

Appellants argue separate patentability for claim 10. However, our decision as to the § 103 rejection of claim 1 is determinative for all claims under this § 103 rejection. Therefore, except for our ultimate decision, we do not discuss the § 103 rejection of claims 10 and 11 further herein.

Issues on Appeal

Did the Examiner err in rejecting representative independent claim 1 and dependent claim 6 under 35 U.S.C. § 112(a) as failing to comply with the written description requirement?

Did the Examiner err in rejecting representative independent claim 1 under 35 U.S.C. § 112(b) as being indefinite?

Did the Examiner err in rejecting representative independent claim 1 under 35 U.S.C. § 101 as being directed to patent ineligible subject matter?

Did the Examiner err in rejecting representative independent claim 1 under 35 U.S.C. § 103 as being obvious?

ANALYSIS

We have reviewed the Examiner's rejections in light of Appellants'
Appeal Brief arguments that the Examiner has erred.

A. *Section 112(a) Analysis*

1.

Appellants raise the following argument in contending that the
Examiner erred in rejecting claim 1 under 35 U.S.C. § 112(a).

> First, Appellant submits that the "*transmitting instructions from
> at least one hardware management controller to one of (1) the
> one or more first computing systems and the at least one selected
> second computing system, and (2) one or more hypervisors
> associated with the one or more first computing systems and the
> at least one selected second computing system*" of claim 1, and
> discussed in FOA ¶ 9, is supported by at least ¶¶ [0060], [0061],
> and [0077] of the Specification.

App. Br.12 (emphasis added).

As to Appellants' above contention, we agree. In particular, we
conclude that paragraph 77 of Appellants' Specification provides sufficient
written description for this claim limitation.

2.

Appellants also raise the following argument in contending that the
Examiner erred in rejecting claim 1 under 35 U.S.C. § 112(a).

> Next, Appellant [sic] submits that the "*determining, based
> on an associated cost of the additional amount of computing
> resources, whether to deallocate the additional amount of
> computing resources to the pool, wherein the associated cost is
> determined based on the second [cost] scheme applied to the [ ]
> excess amount of resource usage*" of claim 1, and discussed in
> FOA ¶ 10 is supported by at least ¶¶ [0104] and [0105] of the
> Specification. The cited portion of the Specification describes a

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particular implementation in which the resource manager "bill[s] for costs that would have been incurred . . . had the amount of excess resource usage been billed under . . . the current cost scheme." ¶ [0104]. More specifically, the Specification provides an example in which a "consumer purchased a fixed amount of "utility" capacity" (corresponding to a first cost scheme) and exceeds the purchased limit by 600 cost units. ¶ [0105]. A "computing system [is] selected to provide "on/off" capacity for the excess resource usage" (corresponding to a second cost scheme). *Id.* "If the total cost threshold is set at the amount that the resource provider would have billed the consumer under the "utility" cost scheme (i.e., 600 cost units), the resource manager may allow continued billing of the consumer's excess resource usage up to 3 μP-days of "on/off" (also equaling 600 cost units) before deallocating the resources back to the system pool." *Id.* (emphasis added). One skilled in the art would plainly understand this discussion as "*determining, based on an associated cost of the additional amount of computing resources, whether to deallocate the additional amount of computing resources to the pool, wherein the associated cost is determined based on the second [cost] scheme applied to the [ ]excess amount of resource usage*".

App. Br. 13 (emphasis added).

We are unpersuaded by Appellants' above contention the Examiner erred. We disagree with Appellants' assertions as to Specification paragraphs 104–105. First, paragraph 104 states "[t]his threshold amount may be chosen according to any number of considerations, but in one embodiment may be chosen specifically to recover costs of the excess resource usage **under the current cost scheme**." Emphasis added. In Appellants' Specification, the phrase "current cost scheme" is used to refer to the first cost scheme not the second cost scheme. "Even though a consumer's resource usage may exceed the predefined limits of a current

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cost scheme, for various reasons the transition to a new cost scheme may not be automatic and seamless." Spec. ¶ 70.

Second, the example in paragraph 105 uses the "*utility*" cost scheme as the first cost scheme and excess resource usage is under the "*on/off*" cost scheme (the second cost scheme). Paragraph 105 (emphasis added) is specific that

> [i]f the total cost threshold is set at the amount that the resource provider would have billed the consumer under the "*utility*" cost scheme (i.e., 600 cost units) the resource manager may allow continued billing of the consumer's excess resource usage up to 3 μP-days of "*on/of*" [cost scheme] (also equaling 600 cost units).

The threshold is determined under the "*utility*" cost scheme, and during excess resource usage, expended under the "*on/off*" cost scheme. That is, paragraph 105 provides support for —wherein the associated cost is determined under the first cost scheme and is expended based on the second cost scheme applied to the excess amount of resource usage—, but does not provide written description for claim 1's currently claimed closing "wherein" limitation.

<div align="center">3.</div>

Appellants raise the following argument in contending that the Examiner erred in rejecting claim 6 under 35 U.S.C. § 112(a).

> Next, Appellant [sic] submits that the . . . [Appellants quote the steps] of claim 6, and discussed in FOA ¶ 11 is supported by at least ¶¶ [0104] and [0105] of the Specification. More specifically, the implementation and example described in the previous paragraph [as to claim 1] also support these limitations.

App. Br. 13.

For the reasons discussed directly above as to claim 1, we are unpersuaded the Examiner has erred in rejecting claim 6.

B. *Section 112(b) Analysis*

Appellants raise the following argument in contending that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 112(b).

> [T]he Examiner suggests that "the functional significance of the limitation 'wherein transferring at least the excess amount of resource usage comprises transmitting instruction[s] from the at least one hardware management controller to one of (1) the one or more first computing system and the at least one selected second computing system, and (2) one or more hypervisors associated with the one or more first computing systems and the at least one selected second computing system' is ambiguous." FOA, pp. 10, 11. Appellant [sic] submits that "functional significance" is not the standard for determining indefiniteness. In any event, claim 1 [is] not made indefinite by the limitation.

App. Br. 15.

As to Appellants' above contention, we agree with the points made by Appellants. In the rejection the Examiner concluded "[i]t is unclear as to what is being accomplished by transmitting the instructions and how the aforementioned limitation further limits the scope of the claim." Final Act. 11. However, our review finds this portion of claim 1 (above step C) is preceded by "transferring at least the excess amount of resource usage from the one or more first computing systems to the at least one selected second computing system" which explicitly states the "what" and "how" the Examiner concludes are unclear.

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C. *Section 101 Analysis*

1. *Case Law*

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." The Supreme Court has "long held that this provision contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)). The Supreme Court in *Alice* reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66, 82–83 (2012), "for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice*, 134 S. Ct. at 2355. The first step in that analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts," such as an abstract idea. For example, a fundamental economic practice is an abstract idea:

> [In *Bilski v. Kappos*], the Court grounded its conclusion that all of the claims at issue were abstract ideas in the understanding that risk hedging was a "'fundamental economic practice.'" 561 U.S., at 611.

Alice, 134 S. Ct. at 2357.

The Court acknowledged in *Mayo* that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the

abstract idea and merely invoke generic processes and machinery. *See
Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016). If
the claims are not directed to an abstract idea, the inquiry ends. Otherwise,
the inquiry proceeds to the second step where the elements of the claims are
considered "individually and 'as an ordered combination' to determine
whether the additional elements 'transform the nature of the claim' into a
patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566
U.S. at 79, 78).

> 2. *Examiner's § 101 Rejection - Alice/Mayo - Steps 1 and 2*

Applying step 1 of the *Alice/M*ayo analysis, the Examiner concludes
claim 1 is directed to an abstract idea because:

> [The claim] steps describe the concept of managing resources
> based on a predetermined billing policy, which corresponds to
> concepts identified as abstract ideas by the courts, such as an
> abstract idea itself [Examiner cites to abstract ideas found in
> *SmartGene*, *buySAFE*, and *Freddie Mac*, and the USPTO July
> 2015 Update: Subject Matter Eligibility].

Final Act. 23–24 (emphasis omitted).

Applying step 2 of the *Alice/M*ayo analysis, the Examiner concludes
"[t]hese independent claims include insignificant pre-solution limitation(s)
[Examiner quotes above claim 1 step A] and post-solution limitation(s)
[Examiner quotes above claim 1 steps C and D]." Final Act. 25–26
(emphasis added).

3. *Appellants' § 101 Arguments*

Appellants raise the following arguments in contending that the Examiner erred in rejecting claim 1 as directed to non-statutory subject matter.

> [T]he rejection identifies the abstract idea as "managing resources based on a predetermined billing policy", and identifies the additional limitations as a processor and a controller. The rejection then quotes the remaining limitations of independent claim 1 verbatim, describing each as being merely insignificant pre-solution limitations or post-solution limitations.

App. Br. 19. As to the *Alice/Mayo* analysis at Step 1:

> [T]he claim is not directed to an abstract idea but rather relates to solving a real-world problem.

App. Br. 20. As to the *Alice/Mayo* analysis at Step 2:

> [Appellants quote the steps of claim 1], such *a very specific and practical application* of computer-based control for a plurality of networked computing systems providing distributed computing resources *is decidedly not an abstract idea* (e.g., a fundamental economic principle, certain methods of organizing human activities, an idea of itself, mathematical relationships/formulas, etc.), and as such, *no further analysis is required* under Part 2 of the two-part test laid out in *Alice*.

App. Br. 21 (emphasis added). Also, as to the *Alice/Mayo* analysis at Step 2:

> [B]y broadly classifying all remaining limitations of independent claim 1 (outside of the terms "processor" and "controller") as being merely insignificant limitations, the Examiner has made only a conclusory rejection and effectively ignores the entire context of the claimed invention.

App. Br. 19–20.

We are unpersuaded by Appellants' argument "the claim is not directed to an abstract idea but rather relates to solving a real-world

problem." Appellants cite no basis for "solving a real-world problem" being a test determinative of patent eligible subject matter. Also, many real-world business problems and human interaction problems are solved by the numerous examples of patent ineligible subject matter found in the cases cited by the Examiner and in the USPTO July 2015 Update: Subject Matter Eligibility and related USPTO subject matter eligibility guidance. We conclude the Examiner has sufficiently shown that claim 1 is directed to the abstract idea of "managing resources based on a predetermined billing policy," i.e., the abstract ideas of managing resource usage and managing cost/price determination.

Accordingly, we are also unpersuaded by Appellants' argument that because the claim steps are "such a very specific and practical application" then "no further analysis is required under Part 2 of the two-part test laid out in *Alice*." App. Br. 21.

We agree, however, with Appellants' argument that the Examiner has made an insufficient conclusory *Alice/Mayo* Step 2 analysis as to the following claim 1 limitation:

> transferring at least the excess amount of resource usage comprises transmitting instructions from the at least one hardware management controller to one of (1) the one or more first computing systems and the at least one selected second computing system, and (2) one or more hypervisors associated with the one or more first computing systems and the at least one selected second computing system.

The claim limitation is directed to restructuring the computing system resources available to the user. Therefore, contrary to the Examiner's conclusion, on this record we conclude this is more than "insignificant post-

solution activity." Instead, a proper rejection under 35 U.S.C. § 101 requires that the Examiner determine whether this is "well-understood, routine, conventional activity, previously engaged in by those in the field." We direct the Examiner's attention to the evidence in Kirchhofer at paragraph 5 where Kirchhofer provides a statement of what is "generally" known in the field.

D. *Section 103 Analysis*

Appellants raise the following argument in contending[4] that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a).

> The Examiner concedes that Kirchhofer does not teach ". . . selecting, based on a predetermined billing policy and the excess amount of resource usage, a second cost scheme . . . to be applied to the excess amount of resource usage," nor "identifying capacity available under the second cost scheme to host [the] excess amount of resource usage." FOA, p. 39. The Examiner suggests that Lappas discloses these limitations, citing to ¶¶ [0275], [0313], [0316], and [0015]. *Id.* at pp. 40-42.
>
> Appellant [sic] notes that the rejection of claim 1 omits a discussion of particular claim limitations, namely "identifying, using the processor, one or more second computing systems from the pool having capacity available under the [selected] second cost scheme to host at least a portion of the excess amount of resource usage . . . . " Appellant [sic] submits that this limitation is neither taught nor suggested by the references.

App. Br. 25–26 (emphasis omitted).

> While Lappas generally discloses charging overage rates according to a overage charge parameter, and the automatic restricting of services (or stopping service or selecting the next

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[4] This contention is determinative as to all the § 103 rejections on appeal. Therefore, Appellants' other contentions are not discussed herein.

> larger resource allotment plan) to protect users against excessive
> overage billing, Lappas does not teach or suggest "identifying
> . . . one or more second computing systems from the pool having
> capacity available under the second cost scheme to host at least
> a portion of the excess amount of resource usage . . . ," as claimed
> or otherwise.

App. Br. 27 (emphasis omitted).

As to Appellants' above contention, we agree. Although we agree with the Examiner's finding that (1) "Kirchhofer teaches 'identifying, using the processor, one or more second computing systems from the pool having capacity available to host at least a portion of the excess amount of resource usage' – in paragraph [0068]" (Final Act. 36), we disagree with the Examiner's finding that (2) "Lappas teaches 'identifying capacity available under the second cost scheme to host excess amount of resource usage' – in paragraph [0275]" (Final Act. 41 (emphasis omitted)). Rather, we find Lappas at 274–275 teaches only "identifying . . . the second cost scheme to [apply to] excess amount of resource usage."

We conclude, for the reasons discussed above as to claim 1 and consistent with Appellants' argument, there is insufficient articulated reasoning to support the Examiner's findings. Therefore, we conclude that there is insufficient articulated reasoning to support the Examiner's final conclusion that claim 1 would have been obvious to one of ordinary skill in the art at the time of Appellants' invention.

CONCLUSIONS

(1) The Examiner has not erred in rejecting claims 1–11 as being unpatentable under 35 U.S.C. § 112(a), as failing to comply with the written description requirement.

(2) Appellants have established that the Examiner erred in rejecting claims 1–11 under 35 U.S.C. § 112(b), as being indefinite.

(3) Appellants have established that the Examiner erred in rejecting claims 1–11 under 35 U.S.C. § 101, as being directed to non-statutory subject matter.

(4) Appellants have established that the Examiner erred in rejecting claims 1–11 as being unpatentable under 35 U.S.C. § 103(a).

(5) Claims 1–11 are not patentable.

DECISION

The Examiner's provisional rejection of claims 1–8, 10, and 11 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1–20 of copending Application No. 14/160,313 is **affirmed**.

The Examiner's rejection of claims 1–11 as being unpatentable under 35 U.S.C. § 112(a) is **affirmed**.

The Examiner's rejection of claims 1–11 as being unpatentable under 35 U.S.C. § 112(b) is **reversed**.

The Examiner's rejection of claims 1–11 under 35 U.S.C. § 101, as being directed to non-statutory subject matter, is **reversed**.

The Examiner's rejection of claims 1–11 as being unpatentable under 35 U.S.C. § 103(a) is **reversed**.

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is **affirmed**. *See* 37 C.F.R. § 41.50(a)(1).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

<u>AFFIRMED</u>