



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/898,129	10/05/2010	Matthew B. TREVATHAN	END920040172US2	3264

46583 7590 04/16/2018
Roberts Mlotkowski Safran Cole & Calderon, P.C.
Intellectual Property Department
P.O. Box 10064
MCLEAN, VA 22102-8064

EXAMINER

KING JR., JOSEPH W

ART UNIT	PAPER NUMBER
----------	--------------

3696

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/16/2018

ELECTRONIC

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.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@rmc2.com
lgallaugh@rmc2.com
secretaries@rmc2.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTHEW B. TREVATHAN, SETH CHISAMORE,
CHRISTOPHER E. HOLLADAY, and MICHAEL P. OUTLAW

Appeal 2017-000956
Application 12/898,129
Technology Center 3600

Before JEAN R. HOMERE, NABEEL U. KHAN, and
PHILLIP A. BENNETT, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1–4 and 16, which constitute all claims pending in this application.¹

App. Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

¹ Appellants identify the real party in interest as International Business Machines Corp. App. Br. 2.

Introduction

According to Appellants, the claimed subject matter relates to a fault tolerant method for managing applications in a grid network computing system including a server profile (120) containing a list of available servers and resource configurations associated therewith. Spec. ¶¶ 2, 22, 23, Fig. 1. In particular, upon receiving from a grid scheduler (302) a request for a resource, a license server (100) dispatches to a license profile (105) to fetch the requested resource in a license cache (115) within the grid network. *Id.* ¶ 35, Fig. 3A. If the resource is available in the license cache (115), the license server (100) retrieves the resource, and forwards the retrieved resource to the grid scheduler (302). *Id.* ¶ 36. Otherwise, the license server (100) locates the resource from a non-cached location within the grid network in the server profile (120), authorizes the resource for use according to the license associated therewith, and subsequently returns the resource to the grid scheduler (302). *Id.* ¶ 37.

Representative Claim

Independent claim 1 is representative, and reads as follows:

1. A method for managing applications in a grid network computing system, comprising the steps of:
 - receiving, at a license server, a license request for a resource from a grid scheduler, the license server having a domain corresponding to an address within the grid network computing system and including a server profile that contains a list of available servers and resource configurations of the available servers;
 - checking a cache of the license server to determine whether the resource with a license is available in the cache;

if the resource with the license is available in the cache, returning a response to the grid scheduler indicating that the cached resource is available with the license; and

if the resource with the license is not available in the cache, locating the resource from a non-cached location of the domain within the grid network computing system in the server profile and authorizing the resource for use according to the license appropriate for the resource and returning a response to the grid scheduler identifying the resource's availability,

wherein the license server is a node in the grid network computing system which manages resources in the grid network computing system and the license server includes a license profile that contains one or more of a number of licenses that are available, a total number of licenses owned, and types of licenses within the grid network computing system.

Rejections on Appeal

Claims 2–4 stand rejected under 35 U.S.C. § 112 (pre-AIA), second paragraph, as failing to particularly and distinctly claim the subject matter, which Appellants regard as the invention. Final Act. 2–4.²

Claims 1–4 and 16 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 4–8.

ANALYSIS

We consider Appellants' arguments *seriatim*, as they are presented in the Appeal Brief, pages 3–15, and the Reply Brief, pages 2–13.³

² The Examiner withdrew the indefiniteness rejection against claims 1 and 16. Ans. 3.

³ Rather than reiterate the arguments of Appellants and the Examiner's findings/conclusions, we refer to the Appeal Brief (filed March 28, 2016) ("App. Br."), the Reply Brief (filed October 17, 2016) ("Reply Br."), and the Answer (mailed August 18, 2016) ("Ans.") for the respective details. We

Patent Ineligibility Rejection

Appellants argue the Examiner erred in concluding that claims 1–4, and 16 are directed to the abstract idea of “managing resources in a network to determine availability of the resources” because the claimed subject matter is not in one of the enumerated categories of abstract ideas (e.g., patent ineligible concept such as a fundamental economic practice, method of organizing human activity, an idea itself, or a mathematical formula). App. Br. 4–5. Instead, Appellants argue that the claim includes many technological features that provide several advantages over traditional economic practices. *Id.* at 5–6 (citing Spec. ¶ 20). In particular, Appellants allege that the claimed recitation of flexibly managing the addition/removal of resources (licensed/unlicensed) while complying with licensing usage terms of the resources due to grid faults or demand changes for one or more applications is a technical improvement for solving a technical problem. *Id.* Further, Appellants allege that, because the claims require “a grid network computing system” including “a node” (e.g., a licensed server) for dynamically adding/removing resources in the grid network computing system, the claimed subject matter has no correspondence in the pre-computer world. *Id.* at 7(citing *DDR Holdings*).⁴ Therefore, Appellants allege that the claimed subject matter is directed to a technological solution only made possible when implemented in computer networks to overcome a

have considered in this Decision only those arguments Appellants actually raised in the Briefs. Any other arguments Appellants could have made but chose not to make in the Briefs are deemed to be waived. See 37 C.F.R. § 41.37(c)(1)(iv).

⁴ *DDR Holdings, LLC v. Hotels.com, LP*, 773 F.3d 1245 (Fed. Cir. 2014).

problem arising in the realm of computer networks. *Id.* at 7–8.

Additionally, Appellants argue that the recited steps of locating a resource or a license from a non-cached location if the requested resource/license is not available in a cached location within the grid network, and authorizing the resource for use according to its license are not ordinary or well-known limitations. *Id.* at 8–9. Consequently, Appellants submit that the claimed subject matter requires certain technology including a cache, a non-cached location, a license server, and a grid scheduler that amount to significantly more than the abstract idea. *Id.* at 9.

These arguments are not persuasive. The U.S. Supreme Court provides a two-step test for determining whether a claim is directed to patent-eligible subject matter under 35 U.S.C. § 101.⁵ In the first step, we determine whether the claims are directed to one or more judicial exceptions (i.e., law of nature, natural phenomenon, and abstract ideas) to the four statutory categories of invention (i.e., process, machine, manufacture, and composition of matter). *Id.* (citations omitted) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)) (“*Mayo*”). In the second step, we “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (citing *Mayo*, 132 S. Ct. at 1297–98). In other words, the second step is to “search for an ‘inventive concept’—i.e., an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (citing *Mayo*, 132 S. Ct. at 1294).

⁵ *Alice Corp. Pty. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

At the outset, we note that claim 1 is directed to a method for managing applications in a grid network computing system including a license server that performs certain conditional steps of locating a resource in a non-cached location, *if the resource is not available in a cached location*.⁶ We further note Appellants' dispute of the Examiner's finding that, similarly to *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343 (Fed. Cir. 2014), the process recited in claim 1 simply analyzes collected data to determine an availability of a requested license and resource in a computer network. Reply Br. 2–3, Ans. 4.

Although the claimed subject matter does recite a license server for retrieving from a non-cached location resources unavailable in a cached location at the behest of a grid scheduler, we agree with the Examiner that the claim simply pertains to the method of performing resource inventory management in a computer network including a cached location and an uncached location. Ans. 4–5. That is, albeit the claims require the license server to perform the functions of analyzing collected data to determine availability of requested resources, such functions are not proprietary to the license server itself. In other words, the analysis of an existing inventory to determine the availability of requested data and to acquire the requested data from a non-cached location (when it is not available at the cached location),

⁶ We note in passing that, under the broadest reasonable interpretation, the cited conditional limitation need not be practiced if the condition for practicing the cited step is not met. That is, if the requested data is found in the cached location, the claim does not require finding the resource in a non-cached location. *See Ex parte Schulhauser*, No. 2013-007847, slip op. at 9–10 (PTAB April 28, 2016) (precedential).

and forwarding the retrieved data to the requesting party involve typical and conventional functions that take place during the inventory management of resources in a distributed computing system, which includes a cached location and an un-cached location. Accordingly, notwithstanding that there may or may not be a direct corresponding offline equivalence for the claimed subject matter, we agree with the Examiner that the claims are directed to the abstract idea of managing resource inventory in a computer network, and not to any improvements to the operation of the computer network itself. *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1338 (Fed. Cir. 2016) (concluding that claims directed to a self-referential table for a computer database were patent eligible because the claims were directed to an improvement in the functioning of a computer). Further, as correctly noted by the Examiner, although the claims recite a solution for a computing system, they are unlike the claims found patent eligible in *DDR Holdings* because they are directed to nothing more than the performance of resource inventory management functions (collecting/analyzing inventory to determine availability of requested resource/license) in a conventional computer network, and not to any technological improvement in the computer network itself. *See id.* at 6.

We likewise agree with the Examiner that the cited claim steps performed between a cache, a non-cached location, a license server, and a grid scheduler, as a whole, do not amount to significantly more than the abstract idea of managing inventory of resources on a computer network because the recited functions of those elements are conventional, well-understood, and do not go beyond those of a general purpose computer for merely managing the availability of data in a distributed computing

environment. Ans. 7–8. Therefore, they do not add any meaningful limitations beyond generally linking the abstract idea to the particular technological environment. *Id.*⁷ Accordingly, we are not persuaded of error in the Examiner’s conclusion that claims 1–4 and 16 are directed to patent ineligible subject matter.

Indefiniteness Rejections

Appellants argue the Examiner erred in concluding that the recitation of the phrase “downloading an image or resource to a target application server . . .” renders claim 2 indefinite. App. Br. 12. According to Appellants, one of ordinary skilled artisan, having read the Specification, would have been able to ascertain the scope of cited limitations. *Id.* at 6–7, Reply Br. 9–10 (citing Spec. ¶¶ 27, 38, 39). This argument is persuasive.

We do not agree with the Examiner that it is unclear what relationship an “image” has with a requested resource, or resource with a license; or is an “image” also being requested, and that the claim is thereby indefinite. Final Act. 3–4.

⁷ Considerations for determining whether a claim with additional elements amounts to “significantly more” than the judicial exception itself include improvements to another technology or technical field (*Alice Corp.*, 134 S. Ct. at 2359 (citing *Diamond v. Diehr*, 450 U.S. 175, 177–78 (1981))); adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application (*Mayo*, 132 S. Ct. at 1299, 1302); or other meaningful limitations beyond generally linking the use of the judicial exception to a particular technological environment (*Alice Corp.*, 134 S. Ct. at 2360). See, e.g., *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (“[M]erely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea.”).

“[It] is well-established that the determination whether a claim is invalid as indefinite ‘depends on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the specification.’” *Atmel Corp. v. Information Storage Devices Inc.*, 198 F.3d 1374, 1378 (Fed. Cir. 1999) (quoting *North Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1579 (Fed. Cir. 1993)). The Examiner admits the following:

As best understood from a reading of the specification in view of claims 1 and 2, the “image” is an “image of an application on a server” which may be downloaded to a target application server. (e.g., Spec. ¶¶ 013, 026) If the claims were amended to describe the image as being an “image of an application on a server”, then the ambiguity would vanish However, paragraphs 013 and 026 of the specification provide the missing definition (perhaps) of what the image may be.

Additionally, as best understood, the term “resource” recited in this portion of claim 2 refers to a resource for which a license was requested in line 3 of claim 1, from which claim 2 depends. Therefore, as best understood, the “resource” of this portion of claim 2 is “the requested resource” of line 3 of claim 1.

Ans. 9.

As persuasively argued by Appellants, the Examiner’s rejection of claim 2 appears to be directed, not to the clarity of the claim language, but to the breadth thereof. App. Br. 12. We agree with Appellants that one of ordinary skill, having read the Specification, would have readily understood that the image recited in the claim pertains to an image [of the application server] obtained from an external resource store for subsequent downloading to a target application. Spec. ¶¶ 13, 27, 38, 39. Likewise, we agree with

Appellants that the term “resource” in recited in claim 2 pertains to the requested resource previously recited in claim 1. Reply Br. 10.

Accordingly, it is supported by sufficient antecedent basis in the claim.

Regarding the rejection of claim 4, we agree with Appellants that the recitation “a configuration update” would be understood by the ordinarily skilled artisan as the license server sending the configuration update to the target application server so as to update the configuration of the application server. Reply Br. 11 (citing Spec. ¶ 40). While we agree with the Examiner that the disputed claim recitation is broad, and it is not particularly defined in the cited portion of the Specification, its perceived breadth does not *per se* render the claim indefinite. *See In re Gardner*, 427 F.2d 786, 788 (CCPA 1970) (“Breadth is not indefiniteness.”). Accordingly, we do not sustain the indefiniteness rejection.

DECISION

For the above reasons, we affirm the Examiner’s patent ineligibility rejection of claims 1–4 and 16. However, we reverse the Examiner’s indefiniteness rejection of claims 2–4.

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).

AFFIRMED