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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* CHRISTOPHER NEWTON and DAVID FULLAGAR

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Appeal 2015-007655  
Application 12/773,086  
Technology Center 2400

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Before MAHSHID D. SAADAT, NORMAN H. BEAMER, and MELISSA A. HAAPALA, *Administrative Patent Judges*.

SAADAT, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

Appellants<sup>2</sup> appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–17. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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<sup>1</sup> An oral hearing for this appeal was held on June 15, 2017.

<sup>2</sup> According to Appellants, the real party in interest is Level 3 Communications, LLC. (App. Br. 2).

## STATEMENT OF THE CASE

Appellants' invention relates to dynamically determining server capacity to be allocated to a customer of a content distribution network (CDN) (Spec. ¶ 8). Exemplary claim 1 under appeal reads as follows:

1. A method comprising:
  - mapping a content provider to a first set of content servers in a content distribution network;
  - receiving content from the content provider, the content to be distributed by the first set of content servers in the content distribution network;
  - monitoring network traffic associated with the content from the content provider;
  - determining at least one metric associated with the network traffic, wherein the at least one metric includes content popularity;
  - remapping the content provider to a second set of content servers in the content distribution network based on the at least one metric.

## REFERENCES and REJECTIONS

Claims 1–17 stand rejected under 35 U.S.C. § 101 as not being directed to patent eligible subject matter (*see* Final Act. 3–4).

Claims 1–6, 8–15, and 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Swildens et al. (US 2009/0132648 A1; May 21, 2009), Berstis et al. (US 2008/0270605 A1; Oct. 30, 2008), and Lobo (US 2006/0161604 A1; July 20, 2006) (*see* Final Act. 4–12).

Claims 7 and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Swildens, Berstis, Lobo, and Brown et al. (US 2006/0235991 A1; Oct. 19, 2006) (*see* Final Act. 12–13).

## ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments that the Examiner errs. We are persuaded the Examiner erred in rejecting the claims under 35 U.S.C. § 101 for not being directed to patent eligible subject matter. We, however, are not persuaded the Examiner erred in rejecting the claims under 35 U.S.C. § 103(a) as obvious in view of the cited references, and we adopt as our own the findings and reasons set forth by the Examiner thereof. *See* Final Act. 4–13; Ans. 11–18. We highlight and address specific findings and arguments for emphasis as follows.

### *Section 101 Rejection*

Independent claim 1 recites a method and is, therefore, directed to one of the four statutory categories of patentability enumerated by 35 U.S.C. § 101 (process, machine, manufacture, or composition of matter). The Examiner finds the claims are “drawn toward the abstract idea of product placement” based on “the popularity of an item as a factor when determining where to place it” (Final Act. 3).

Appellants contend the Examiner erred in finding claim 1 is not directed to patent eligible subject matter. *See* App. Br. 6–13. Appellants argue that, contrary to the Examiner’s assertion, none of the claims “attempts to tie up the broad category of ‘product placement’” (*id.* at 8). Appellants’ further argue the claims are similar to DDR Holdings case that are tailored toward computer network technology (Reply Br. 6–7 (citing *DDR Holdings, LLC v. Hotels.Com, LP*, 773 F.3d 1245, 1257 (Fed. Cir. 2014))). With respect to whether the claims are drawn to “product

placement,” Appellants argue the Examiner has not presented evidence that such concept is indeed an abstract idea (*id.* at 7).

We are persuaded by Appellants’ arguments. The Supreme Court has set forth “a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012)). According to this framework, a determination is made to consider whether the claims at issue are directed to one of those concepts (i.e., laws of nature, natural phenomena, and abstract ideas). *See id.* If so, a further determination must be made to 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.*

First, we review claim 1 to determine whether it is directed to a patent ineligible concept, such as the “abstract idea” exception found by the Examiner. *See Mayo*, 132 S. Ct. at 1297; *see also* Final Act. 3. The claim recites steps of “determining at least one metric associated with the network traffic” and “remapping the content provider to a second set of content servers in the content distribution network based on the at least one metric.” We find the recited steps are not directed to an abstract idea, but merely recite certain steps used to assess and determine at least one metric associated with the network traffic and remapping the content provider to a second set of servers based on the determined metric.

Particularly, we are persuaded by Appellants’ argument that the Examiner’s generic, conclusory statement that “Appellants choses to engage

the use of broad language to cover any ‘remapping [] based on the at least one metric’” and “[b]ecause remapping within a content delivery network is a form of product placement, the claim encompasses product placement” (Ans. 4) does not address the actual claim limitations (Reply Br. 5–6). The recited limitations of mapping and remapping the content provider in claim 1, for example, does not simply recite the general concept of “product placement,” as the Examiner stated. Furthermore, we disagree with the Examiner that the claims are patent-ineligible “[b]ecause CDNs conventionally consider popularity, the scope Appellant[s] would be getting would largely be ‘remapping the content provider to a second set of servers’ as the CDN industry will conventionally meet all the other steps” (Ans. 6). As explained in Appellants’ Specification (*see e.g.*, Spec. ¶¶ 21, 25–28), a binding map controls mapping and remapping the content providers based on server capacity.

Moreover, we are persuaded by Appellants assertion that

[T]he claims at issue in this appeal are like the example of DDR holdings from the USPTO’s published examples of claims that are patent eligible under 35 U.S.C. §101. *See, e.g.,* [http://www.uspto.gov/patents/law/exam/abstract\\_idea\\_example\\_s.pdf](http://www.uspto.gov/patents/law/exam/abstract_idea_example_s.pdf). Appellant’s claimed system causes a computer system to work more efficiently. Through the use of at least one metric, the functionality of the computer system is improved. Thus, the claims are not simply saying use a computer to apply an abstract idea. Instead, the claims improve the operation of a computer system.

(App. Br. 11). We agree with Appellants comparison between the claims on appeal and those in DDR holding and observe that the recited “mapping a content provider to a first set of content servers in a content distribution network” and “remapping the content provider to a second set of content

servers in the content distribution network” is not reciting merely a functionality for arranging content providers. In fact, similar to DDR holding, the appealed claims are “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks,” and that the claimed invention did not simply use computers to serve a conventional business purpose (*see DDR Holdings, LLC v. Hotels.com*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)).

Therefore, we are persuaded the Examiner erred in finding claims 1–17 recite patent-ineligible subject matter. Accordingly, we do not sustain the rejection of claims 1–17 under 35 U.S.C. § 101.

### *Section 103 Rejections*

#### *Claims 1–5*

First, Appellants contend paragraphs 42 and 49 of Swildens do not teach or suggest the recited step of “monitoring network traffic associated with the content from the content provider” (App. Br. 14–15). More specifically, Appellants contend the cited portions of Swildens make no mention of “traffic associated with content from the content provider” or “monitoring” such traffic (App. Br. 15–16).

These arguments are not persuasive because, as explained by the Examiner (Ans. 11–12), Swildens’ disclosure relates to content delivery and domain name servers (DNS) in a content delivery system. The Examiner finds the DNS monitors resource availability such as latency in order to determine the best-suited server for assigning services (Ans. 12 (citing Swildens ¶¶ 47, 49)). We agree with these findings.

Second, Appellants contend the disclosure of Swildens, in paragraph 46, fails to teach or suggest the recited step of “determining at least one metric associated with the network traffic, wherein the at least one metric includes content popularity” (App. Br. 16). More specifically, Appellants contend the cited portion of Swildens makes “no mention of a ‘metric associated with the network traffic’ wherein ‘the network traffic’ refers to ‘network traffic associated with the content from the content provider’” (*id.*).

The Examiner finds the cited portion of Swildens in paragraph 46 discusses using a metric for testing latency in terms of the round trip time between servers, whereas paragraph 40 discloses determining the best suited server based on the network performance and server loads (Ans. 13). With respect to the recited “content popularity,” the Examiner explains that Lobo was relied on for teaching an alternate factor, such as the usage or popularity of digital content, may be considered for determining the server location for storing the content (*id.* (citing Lobo ¶ 72)). Additionally, the Examiner finds Swildens provides a similar factor, such as whether a content is cached or a measure of popularity, as a metric threshold for determining how to remap to a different set of servers (Ans. 14 (citing Swildens ¶ 53)). We also agree with these findings.

Lastly, Appellants contend the combination of references and replacing the load metric of Berstis would “interfere with the operation of Berstis” (App. Br. 18). Appellants assert the proposed modification would render Berstis unsatisfactory for its intended purpose and change the principle of operation of Berstis (*id.*).

In response, the Examiner explains that the combination is based on modifying Swildens with the teachings of Berstis and Lobo (Ans. 14).



Furthermore, the Examiner characterizes Appellants' argument an attempt to bodily incorporate the teachings of the secondary reference into the primary reference, whereas the combination is based on "what the combined teachings of the references would have suggested to those of ordinary skill in the art" (Ans. 15 (citing *In re Keller*, 642 F.2d 413 (CCPA 1981)); see also *In re Mouttet*, 686 F.3d 1322, 1332–33 (Fed. Cir. 2012) (citing *Keller*, 642 F.2d at 425) ("[T]he test for obviousness is what the combined teachings of the references would have suggested to those having ordinary skill in the art.")). We agree with the Examiner's characterization.

Further, the Examiner finds, and we agree, that Appellants' arguments regarding rendering Berstis unsatisfactory for its intended purpose and changing the principle of operation of Berstis are not supported by sufficient evidence (Ans. 16). In fact, the Examiner correctly asserts "replacing the load metric with a popularity metric' is mere [sic] simple substitution" (*id.*), which was found in *KSR* to be nothing "more than the predictable use of prior art elements according to their established functions, and thus would have been obvious to one of ordinary skill in the art." *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007).

In view of these findings, Appellants' arguments are also unpersuasive because they do not address the actual reasoning of the Examiner's rejection based on the combination of the applied prior art. They fail to acknowledge the knowledge, creativity, and common sense that one of ordinary skill in the art would have used when considering combinations or modifications. See *KSR*, 550 U.S. at 415—22; see also *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (Fed. Cir. 2013).

Thus, we agree with the Examiner that the cited combination of references teaches or suggest all of the claim elements of independent claim 1. Accordingly, we sustain the Examiner's rejection of claim 1, as well as claims 2–5 which are not argued separately, under 35 U.S.C. § 103(a) as unpatentable over Swildens, Berstis, and Lobo.

*Claim 6*

Appellants argue the patentability of claim 6 based on arguments similar to those presented for claim 1 (App. Br. 19–23). The Examiner provides a comprehensive response citing to the relevant passages in the applied references. Based on the Examiner's findings and analysis, which we adopt as our own, we sustain the Examiner's rejection of claim 6, under 35 U.S.C. § 103(a) as unpatentable over Swildens, Berstis, and Lobo.

*Claims 12–15 and 17*

Appellants contend the rejection of claims 12–15 and 17 lacks “an element-by-element analysis of the claim language in each claim and by not noting where each element is purportedly taught by the cited references.” (App. Br. 23). Similar to our discussion above, we agree with the Examiner's findings and analysis of the prior art teachings and adopt them as our own (*see* Final Act. 10–12, Ans. 21–31). Accordingly, we sustain the Examiner's rejection of claims 12–15 and 17 under 35 U.S.C. § 103(a) as unpatentable over Swildens, Berstis, and Lobo.

*Remaining Claims*

Appellants provide no substantive and separate arguments for dependent claims 7 and 16 or the remaining dependent claims (*see* App. Br. 26). We therefore sustain their rejections for the reasons stated with respect to independent claim 1.

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DECISION

We affirm the Examiner's decision to reject claims 1–17.

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