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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* MILES PASCHINI and MARSHALL ROSE

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Appeal 2017-002940  
Application 12/786,403<sup>1</sup>  
Technology Center 3600

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Before MELISSA A. HAAPALA, *Acting Vice Chief Administrative Patent Judge*, ROBERT E. NAPPI, and CARL L. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 15, 16, 18–24, 26, 27, and 29–36, which constitute all pending claims.<sup>2</sup> App. Br. 4, 12. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

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<sup>1</sup> The real party in interest is identified as Blackhawk Network, Inc. App. Br. 3.

<sup>2</sup> The first page of the Office Action lists claim 28 as pending. Final Act. 1. We treat this as a typographical error because Appellants assert claim 28 is canceled (App. Br 12, 28) and the body of the Office Action does not include a rejection for claim 28 (*see* Final Act. 5–11; *supra* note 3).

STATEMENT OF THE CASE

The invention relates to managing an inventory of PINs (personal identification numbers) in a PIN distribution network wherein the distribution network includes a hub coupled to one or more servers and each of the servers is coupled to at least one client terminal. The hub dynamically allocates PINs of the inventory among the servers to maintain a quantity of PINs at each server at a desired level for each server. Abstract, Fig. 1, ¶¶ 101, 111.

Claim 15, reproduced below, is exemplary of the subject matter on appeal (emphasis added):

15. A method for managing an inventory of PINs located on a plurality of servers in a PIN distribution network, the PIN distribution network including a hub coupled to each of the plurality of servers, each of said plurality of servers coupled to at least one of a plurality of client terminals, the hub having a processor and a non-transitory computer readable memory, the processor executing programming code stored on the non-transitory computer readable memory which causes the hub to perform the method, the method comprising:

*receiving, by the hub, a request for a PIN from a second server of the plurality of servers; dynamically allocating, by the hub, PINs of said inventory of PINs among said plurality of servers so as to substantially maintain a quantity of PINs at each server at a desired level for each server, wherein said dynamically allocating includes, in response to receipt of the request for a PIN by the hub from the second server of said plurality of servers, receiving, by the hub, a portion of said inventory of PINs which are located at a first server of said plurality of servers and sending, by the hub, the portion to the second server of said plurality of servers.*

App. Br. 26 (Claims Appendix).

## THE REJECTIONS

Claims 15, 16, 18–24, 26, 27, and 29–36 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter. Final Act. 5–6.

Claims 15, 16, 18, 20, 21, 23, 24, 26, 29, and 31–36 are rejected under 35 U.S.C. §103 as being unpatentable over Ronchi et al. (US 2002/0077973 A1; pub. June 20, 2002) (“Ronchi”) in view of Birjandi et al. (US 7,210,624; iss. May 1, 2007) (“Birjandi”). Final Act. 6–10.<sup>3</sup>

Claims 19, 22, 27, and 30 are rejected under 35 U.S.C. §103 as being unpatentable over Ronchi, Cruse et al. (US 2002/0010659 A1; pub. January 24, 2002) (“Cruse”), and Jackson et al. (US 2004/0210489 A1; pub. October 21, 2004) (“Jackson”). Final Act. 10–11.

## ANALYSIS

### *The § 101 Rejection*

The Examiner concludes the claimed invention is directed to non-statutory subject matter because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. Final Act. 5–6. The Examiner concludes the claims are directed to the abstract idea of allocating PINs and distributing a PIN to a client and the additional elements or combination of elements in the claims do not provide meaningful limitations to transform the abstract idea to significantly more than the abstract idea itself. *Id.*

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<sup>3</sup> The header of this rejection lists claims 17, 25, and 28 as included in this rejection. Final Act. 6. We treat this as a typographical error because these claims are canceled and the body of the rejection does not include an analysis of these claims. *See* App. Br. 12; Final Act. 6–10.

Appellants argue the claims are not directed to an abstract idea and the Examiner does not present the required prima facie case. App. Br. 5–11; Reply Br. 8–25. Appellants argue, even assuming the claims are directed to an abstract idea, the claimed hub element “is a physical device programmed with software and having a processor (CPU), memory devices (RAM, ROM, and a data storage device to perform the particular functions” and “[t]herefore, because the instant claims require and recite a specifically programmed processing computer (the hub) performing particular, recited functions, the instant claims recite patent eligible subject matter.” App. Br. at 8 (citing *In re Bilski*, 545 F.3d. 943, 954 (Fed. Cir. 2009); *In re Alappat*, 33 F.3d 1526, 1545 (Fed. Cir. 1994)).

Appellants argue the hub is a machine programmed to perform particular functions, including 1) receiving a request for a PIN from a second server, 2) in response to receiving the request for a PIN from the second server, receiving a portion of an inventory of PINs located at a first server, and 3) sending the portion to the second server. *Id.* at 8–9. Appellants then argue, under the second step of *Alice*, the recitation of a “hub” in the claims provides the “inventive concept” because the hub is a “particular machine/special purpose computer.” *Id.* 8–9 (citing *Alice* 134 S. Ct. at 2347, 2355 (2014)).

Appellants argue the claims are patent eligible because they “recite a solution necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer systems which distribute PINs to clients.” *Id.* at 9–10. According to Appellants:

Moreover, with operative communication with the hub along with the recited functions for the hub's communication with the first and second servers, the hub may accomplish PIN allocation (redistribution of PIN

inventories when needed) in order to solve the problem specifically arising in the realm of computer systems which distribute PINs to clients, namely, maintaining PIN inventory on multiple servers, for example, such that inventory on [sic] any given server (e.g., the first and second servers) is sufficient but not in excess. *See, e.g.,* Appellants' Specification at [0146] (in U.S. Publication No. 2010/229,221).

Thus, Appellants' method and system claims are patent eligible because said claims recite a hub which provides a solution necessarily rooted in computer technology in order to overcome the problem of PIN inventory management arising in the realm of computer systems which distribute PINs to clients. *See DDR Holdings, LLC*, 112 USPQ2d at 1097.

*Id.* at 10.

Appellants argue the claims are patent eligible as they do not “use the internet” to perform a business practice and “instead recite a specific way to reallocate PINs already distributed to servers, from one server having an ample inventory of PINs to another server having an insufficient inventory of PINs.” *Id.* at 10–11 (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1249 (Fed. Cir. 2014)).

In the Answer, the Examiner determines claims 15, 16, 18–24, 26, 27, and 29–36 are directed to the abstract idea of allocating PINs by a hub to balance inventory and distributing a PIN to a client. Ans. 2. The Examiner finds claim 15 recites, in part, receiving a pin request, dynamically allocating between servers an inventory of PINs, and these steps describe the concept of using categories to organize, store and transmit information, which corresponds to concepts identified as abstract ideas by the courts. *Id.* (citing *Cyberfone Systems, LLC v. CNN Interactive Group*, 558 Fed. Appx. 988 (Fed. Cir. 2014)). *Id.* at 2–3. Regarding Appellants' argument that the claims are tied to a machine, the Examiner concludes the limitations are

recited at a high level of generality and are recited as performing conventional generic computer functions routinely used in computer applications, amounting to no more than implementing the abstract idea with a computerized system. *Id.* at 3.

Regarding the hub as an inventive concept, the Examiner concludes the claim limitations are recited at a high level of generality and performing generic computer functions routinely used in computer applications. *Id.* at 3. According to the Examiner:

Generic computer components recited as performing generic computer functions that are well-understood, routine and conventional activities amount to no more than implementing the abstract idea with a computerized system. . . . Examiner notes that although the claimed process is performed by a computer system that the introduction of a computer into the claims does not alter the analysis under Alice. "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. This conclusion accords with the pre-emption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of "additional feature" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself." Alice Corp. Pty. Ltd., 134 S.Ct. at 2358 (citations omitted).

*Id.* at 3–4.

In the Reply Brief, Appellants argue the Examiner's conclusion is based on "an out of date, improper standard." Reply Br. 8–9 (citing *Enfish, LLC v. Microsoft Corporation*, 822 F.3d 1327, 1339 (Fed. Cir. 2016); May 19, 2016 Recent Subject Matter Eligibility Decisions, 2). According to Appellants, claims 15 and 23 "require implementation of a specialized hub to manage a PIN inventory via the recall and reallocation of said PIN inventory" and this constitutes an improvement to computer functionality

such that the overall memory requirements of the system's servers can be reduced due to the servers no longer needing to maintain an oversupply of PINs due to the ability of the hub to balance the inventory. *Id.* (citing Spec. ¶¶ 8–11, 165, 166).

As discussed below, we are persuaded by Appellants' arguments that the Examiner does not establish the claims are directed to an abstract idea, and, thus, does not establish the claims are patent ineligible.

The Supreme Court in *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014) reiterated the framework set out in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012) for “distinguishing patents that claim . . . abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to determine if the claim is directed toward a patent-ineligible concept and, if so, the second step is to determine whether there are additional elements that transform the nature of the claim into a patent eligible application. *Id.* (citing *Mayo*, 566 U.S. at 79, 78). The second step searches for an inventive concept that is sufficient to ensure that the patent amounts to significantly more than a patent on the patent-ineligible concept. *Id.* (citing *Mayo*, 566 U.S. at 72–73).

The question is not whether claims mention a computing environment but what they are “directed to.” The “directed to” inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether “their character as a whole is directed to excluded subject matter.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015); *see Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1376, (Fed. Cir. 2016) (inquiring into “[t]he focus of the claimed advance over the



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prior art”); *Enfish*, 822 F.3d at 1335. “The ‘abstract idea’ step of the inquiry calls upon us to look at the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Texas, LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)). “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

Here, we agree with Appellants’ argument that the Examiner is oversimplifying claim 15 and ignoring the claim elements. *See Enfish, LLC, v. Microsoft Corp.* 822 F.3d 1337, (“describing the claims at such a high level of abstraction and untethered from the language of the claims all but ensures that the exceptions to § 101 swallow the rule.”). In particular, although the Examiner cites *Cyberfone Systems* as an analogous case, unlike the current claims, *Cyberfone Systems* is directed to capturing, storing and separating data, using a telephone. *See Cyberfone Systems* 558 Fed. Appx. 988, 989. We agree with Appellants that *Enfish* and *DDR* are more analogous. Additionally, we note *Cyberfone Systems* is not a precedential decision.

In *Enfish*, the court determined the claimed self-referential database feature constitutes an improvement to the way computers operate, is not an abstract idea under step one of *Alice*, and there is no need to consider step two. *See Enfish* 822 F.3d at 1338.

In *DDR*, the claims at issue involved, *inter alia*, “web page[] displays [with] at least one active link associated with a commerce object associated

with a buying opportunity of a selected one of a plurality of merchants.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d at 1249 (claim 18 of US 7,818,399). The Federal Circuit found the claims in *DDR* to be patent eligible under step two of the *Mayo/Alice* test because “the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.* at 1257. Specifically, the Federal Circuit found the claims addressed the “challenge of retaining control over the attention of the customer in the context of the Internet.” *Id.* at 1258. Here, the rejected claims are directed to maintaining PIN inventory among multiple servers such that the inventory is sufficient. This is similar to *DDR* in that it is rooted in computer technology and solves a problem “specifically arising in the realm of computer networks.”

Therefore, independent claims 15 and 23 are patent eligible as these claims are not directed to an abstract idea, and there is no need to consider step two of *Alice*.

In view of the above, we do not sustain the rejection of independent claims 15 and 23, and dependent claims 16, 18–22, 26, 27, and 29–36.

#### *The § 103 Rejection*

Appellants argue the Examiner errs in finding *Birjandi* teaches the disputed independent claim 15 limitation

*receiving, by the hub, a request for a PIN from a second server of the plurality of servers; dynamically allocating, by the hub, PINs of said inventory of PINs among said plurality of servers so as to substantially maintain a quantity of PINs at each server at a desired level for each server, wherein said dynamically allocating includes, in response to receipt of the request for a PIN by the hub from the second server of said plurality of servers, receiving, by the hub, a portion of said inventory of PINs which are located at a first server of said plurality of*

*servers and sending, by the hub, the portion to the second server of said plurality of servers.*

App. Br. 13–21; Reply Br. 5–8.

According to Appellants, the claim 15 method for managing PIN inventory requires the hub, in the context of an inventory of PINs located on a plurality of servers: i) to receive a request for a PIN from a second server of the plurality of servers, ii) in response to receiving the request, receive a portion of the inventory of PINs located at a first server, and iii) send the portion of the inventory of PINs to the second server (also referred to as “allocation features”). *Id.* at 14. Appellants argue the Examiner relies on Birjandi for the allocation features but Birjandi discloses only unidirectional flow of parts. *Id.* at 14–16 (citing Birjandi, Abstract, 3:10–25, 6:10–25); *see also* Fig. 1. According to Appellants, “*Birjandi*, at most, discloses the general concept of determining a path for transferring an excess part from one location to another (sometimes via an intermediary) as well as optimization of an algorithm (transfer function) for distribution, and an example method for estimating availability lead-time of a part.” *Id.* at 16. Appellants argue, however, there is no disclosure in Birjandi that the intermediary requests a part from its supply in response to a request for a part from its requesting recipient and Birjandi does not teach the allocation features. *Id.*

Referring to Figure 1 of Birjandi, Appellants argue, even assuming Birjandi’s central location 22a is a hub, warehouse location 22b or 22c is a second server, and the other of warehouse location 22b or 22c is a first server, the solid arrows show the flow of parts only from the central location 22a to warehouses 22b or 22c. *Id.* at 17–18. Appellants then argue

“*Birjandi* fails to disclose a flow of parts from either of warehouse locations 22b or 22c to the central location 22a, i.e., *Birjandi* fails to disclose flow of a PIN from a first server to second server via a hub.” *Id.* at 18. Appellants then argue *Birjandi* fails to disclose a “hub” which receives a portion of PIN inventory from a “first server” and sends the portion of the PIN inventory to a “second server.” *Id.*

Appellants argue the Examiner has unreasonably construed the claimed servers or hub to include *Birjandi* warehouses or central location 22a. *Id.* (citing *MPEP* § 2111; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316, (Fed. Cir. 2005); *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Cir. 1999)). Appellants refer to the Specification as describing hub and server as a computer-based device and argue that one of ordinary skill in the art would not consider these terms to include non-computer device embodiments such as *Birjandi*’s central location and warehouse locations. *Id.* at 19 (citing Spec. ¶¶ 58, 148, 151). Additionally, Appellants argue *Birjandi* describes computer devices for inventory distribution and this distinguishes between computer based (inventory distribution) and non computer based (central location and warehouse locations). *Id.* n.1.

Appellants additionally argue *Birjandi* should not be considered as it is non-analogous art. *Id.* at 19–20, n.2 (citing *MPEP* § 2141.01(a)).

In the Answer, the Examiner finds *Birjandi* discloses an intermediary (e.g. hub) requesting a part from its supply in response to a request for a part from its requesting recipient (e.g. server) and teaches the concept of a “hub facilitating the transfer of an inventory item between two servers.” Ans. 5 (citing *Birjandi* 3:6–26):

In one embodiment, locations 22 include a central location 22a and one or more warehouse locations 22b d. Although central location 22a and

warehouse locations 22b d are illustrated, distribution network 20 may include any suitable number of central locations 22 and warehouse locations 22. Each location 22 may comprise a supply location and/or a demand location. A supply location supplies a part to a demand location, and may supply the part in response to an order for the part sent from the demand location. For example, warehouse location 22b supplies parts to warehouse location 22d. For example, warehouse locations 22b c supply parts to location 22d. A location 22 may comprise both a demand location and a supply location.

**For example, warehouse location 22b receives parts from central location 22a and supplies parts to warehouse location 22d. A supply endpoint such as central location 22a receives parts from one or more external suppliers 24, for example, a vendor, and distributes the parts to warehouse locations 22b d. A demand endpoint such as warehouse location 22d provides parts to one or more external demands 32, for example, a customer.**

Ans. 5 (emphasis added by Examiner).

The Examiner finds PINs are a type of inventory and

Birjan[d]i discloses a process of inventory management, absent any language in the claim that specifies an inventory management step that is unique to PINs, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of the invention that the inventory management system of Birjandi could be applied to the PIN system of the present invention.

*Id.* at 6.

The Examiner finds one of ordinary skill in the art would consider the recited “hub” and “server” to include non-computer device embodiments, such as Birjandi's central location or warehouse locations. *Id.* The Examiner finds that Birjandi discloses discrete warehouse locations, but there is no language in Birjandi that precludes the inventory from being in a “virtual” or non-physical form such as a PIN, and it would have been obvious to one of ordinary skill in the art at the time of the invention that the

“warehouse” as disclosed by Birjandi could merely be a server at a discrete location storing PINs. *Id.* The Examiner asserts that the term warehouse is understood to be a location for storing inventory which could be real or virtual and it is reasonable to construe the scope of Appellants’ claimed “servers” or “hub” to include Birjandi’s warehouses or central location. *Id.* at 6–7.

The Examiner finds Birjandi is analogous art because Birjandi is directed to inventory balancing and is in the same field of endeavor as the claimed invention. *Id.* at 7.

In the Reply Brief, Appellants argue the Examiner errs in finding “Birjandi’s disclosure of transferring inventory between warehouses via a central location is sufficient in terms of art to teach the inventive concept of ‘hub facilitating the transfer of an inventory item between two servers’.” Reply Br. 5–6 (citing Ans. 4–5; Birjandi 3:6–26). According to Appellants, “nothing in *Birjandi* discloses ‘transferring inventory between warehouses via a central location’.” *Id.* at 6. Appellants argue “Birjandi is limited to disclosing that a warehouse receives inventory from a central location and then that warehouse may transfer inventory to another warehouse - there is simply no disclosure in Birjandi that a warehouse transfers inventory to another warehouse via a central location as an intermediary.” *Id.* (citing Birjandi, Fig. 1, 6:10–25). Appellants argue the Examiner “wholly disregards the explicit claim elements requiring the hub to receive a portion of an inventory of PINs from a first server and to send said portion of an inventory of PINs to a second server.” *Id.* at 7. Appellants additionally argue the Examiner does not find that Birjandi discloses “a first warehouse returning goods to a central location so the central location can supply the

first warehouse's returned goods to a second warehouse (i.e., inventory recall and reallocation by a central hub) – because *Birjandi* contains no such disclosure.” *Id.* at 7.

Based on the record before us, we are persuaded by Appellants’ arguments regarding claim interpretation. In particular, the Examiner’s claim interpretation of “hub” to include the Birjandi warehouse system is unreasonably broad and not consistent with the Specification. *See, e.g.*, Spec. ¶¶ 243, 251. Even assuming Birjandi’s warehouse system teaches a hub functionality, Birjandi’s warehouse system does not teach a hub comprising a processor and memory as recited in independent claims 15 and 23. Claim terms in a patent application are given the broadest reasonable interpretation consistent with the Specification, as understood by one of ordinary skill in the art. *In re Crish*, 393 F.3d 1253, 1256 (Fed. Cir. 2004).

As discussed, *supra*, the Examiner relies on Birjandi for the disputed limitation in which a hub performs the allocation features and, therefore, in view of the Examiner’s unreasonably broad claim interpretation, the reliance on Birjandi is not supported. Additionally, we note, on the record before us, the Examiner does not present sufficient evidence that Ronchi teaches a hub and in particular, a hub that is consistent with the Specification. Therefore, in view of the unreasonably broad claim interpretation, the Examiner presents insufficient evidence as required for obviousness.

In view of the above, we do not sustain the rejection of independent claim 15, and its dependent claims 16, 18, 20, 21, 31, 32, and 34–36 as these claims stand of fall with claim 15. App. Br. 12. We also do not sustain the rejection of independent claim 23, and its dependent claims 24, 26, 29, and 33 as these claims stand of fall with claim 23. *Id.*

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Because our decision with regard to the disputed limitation is dispositive of the rejections, we do not address additional arguments raised by Appellants.

#### DECISION

We reverse the Examiner's decision rejecting claims 15, 16, 18–24, 26, 27, and 29–36 under 35 U.S.C. § 101.

We reverse the Examiner's decision rejecting claims 15, 16, 18–24, 26, 27, and 29–36 under 35 U.S.C. § 103.

REVERSED