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Otterstedt, Ellenbogen & Kammer, LLP
P.O. Box 381
Cos Cob, CT 06807-0381

| EXAMINER | |
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| NIGH, JAMES D | |

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* CHARLES HASEK

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Appeal 2017-007967
Application 12/622,825
Technology Center 3600

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Before CAROLYN D. THOMAS, JEREMY J. CURCURI, and JON M. JURGOVAN, *Administrative Patent Judges*.

CURCURI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1, 8–15, 19–27, and 29–34. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

Claims 1, 8–15, 19–27, and 29–34 are rejected under 35 U.S.C. § 101 as directed to a judicial exception without particularly more. *Id.* at 7–16.

Claim 24 is rejected under pre-AIA 35 U.S.C. § 112, second paragraph, as being indefinite. *Id.* at 16–17.

Claims 1, 8–11, 13–15, 19–21, 23–25, and 29–34 are rejected under pre-AIA 35 U.S.C. § 102(b) as anticipated by Rodriguez (US 7,340,759 B1; Mar. 4, 2008). *Id.* at 18–21.

Claims 12, 22, 26, and 27 are rejected under pre-AIA 35 U.S.C.

§ 103(a) as obvious over Rodriguez and Schlack (US 2010/0086020 A1; Apr. 8, 2010). *Id.* at 22–24.

We affirm-in-part.

## STATEMENT OF THE CASE

Appellant's invention relates to "video content networks." Spec. 1:5. Claim 1 is illustrative and reproduced below:

1. A method comprising the steps of:

receiving, from a first one of a plurality of terminals in a service group of a video content network, a first request to establish a first category of session with a head end of said video content network, the first category being indicative of first video and data services comprising a first one of video on demand, switched digital video, gaming, and file download;

receiving, from a second one of said plurality of terminals in said service group of said video content network, a second request to establish a second category of session with said head end of said video content network, the second category being indicative of second video and data services comprising a second one of video on demand, switched digital video, gaming, and file download, wherein said video content network provides at least said first and second different categories of sessions to said service group;

evaluating, by a session resource manager apparatus coupled to said network, said first request against a policy, said policy specifying a maximum utilization threshold for sessions of said first category as a maximum allowable number of said sessions of said first category and a maximum utilization threshold for sessions of said second category as a maximum allowable number of said sessions of said second category, said evaluating of said first request against said policy comprising determining whether granting said first request would cause said maximum allowable number of said sessions of said first category to be exceeded;

> evaluating, by said session resource manager apparatus coupled to said network, said second request against said policy, said evaluating of said second request against said policy comprising determining whether granting said second request would cause said maximum allowable number of said sessions of said second category to be exceeded;
>
> responsive to said evaluating of said first request against said policy indicating that granting said first request would not cause said maximum allowable number of said sessions of said first category to be exceeded, granting, by said session resource manager apparatus, said first request; and
>
> responsive to said evaluating of said second request against said policy indicating that granting said second request would indeed cause said maximum allowable number of said sessions of said second category to be exceeded, denying, by said session resource manager apparatus, said second request.

## PRINCIPLES OF LAW

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

## ANALYSIS

### THE 35 U.S.C. § 101 REJECTION OF CLAIMS 1, 8–15, 19–27, AND 29–34

#### *Contentions*

The Examiner concludes:

> The steps of receiving requests can be viewed as data gathering steps. The evaluating steps are implementing stored rules regarding the policies that indicate how many sessions can be allowed (page 14, lines 14-26, page 16, lines 12-19, page 19 line 29 through page 30, line 10). Based on the stored rule sets sessions will either be granted or denied. The decisions are based at least in part on prioritizing revenue generating sessions

against free sessions (page 28, lines 1-15). When viewing the limitations both individually and as a whole, claim 1 must be held as being directed towards the judicial exception of an abstract idea involving the allocation of limited resources based on financial considerations, which is a combination of fundamental economic practice (*Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, . . . 134 S. Ct. 2347, 2356 (2014)) in conjunction with the organization of human activity based on stored rules (*buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014), (*Accenture Global Services, GmbH v. Guidewire Software*, 728 F.3d 1336, 1340-41 (Fed. Cir. 2013)). As the decision essentially uses stored rules to emulate human decision making, the claim can also be viewed as being an idea of itself (*Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372 (Fed. Cir. 2011), ((Unpublished) *SmartGene, Inc. v. Advanced Biological Labs., SA* (Fed. Cir. 2014)). Dependent claims 8-13, 26 and 28 [sic] merely provide additional conditions regarding the rule based decision process and must also therefore be held as being directed towards the judicial exception of an abstract idea involving the allocation of limited resources based on financial considerations, which is a combination of fundamental economic practice ([*Alice*, 134 S. Ct. at 2356]) in conjunction with the organization of human activity based on stored rules ([*buySAFE*, 765 F.3d at 1355]), ([*Accenture Global*, 728 F.3d at 1340-41]). As the decision essentially uses stored rules to emulate human decision making, the claim can also be viewed as being an idea of itself ([*Cybersource*, 654 F.3d at 1372]), ((Unpublished) [*SmartGene*]). Claims 1, 8-13, 26 and 28 [sic] do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements are merely well-understood, routine, and conventional functions when they are claimed in a merely generic manner such as performing repetitive calculations (*Bancorp Services LLC v. Sun Life Assurance Co. of Canada (U.S.)*, [687 F.3d 1266] (Fed. Cir. 2012)), receiving, processing, and storing data ([*Alice*, 134 S. Ct. at 2356]) electronic recordkeeping ([*id.* at 2356]) automating mental tasks ([*Bancorp Services*], ([*Cybersource*, 654 F.3d at 1372]) receiving or transmitting

> data over a network, e.g., using the Internet to gather data (*Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714-15 (Fed. Cir. 2014), ([*buySAFE.*, 765 at 1355], (*Cyberfone Systems, LLC v. CNN Interactive Group, Inc.*, 558 Fed. Appx. 988, 993 (Fed. Cir. 2014)). Therefore claims 1, 8-13, 26 and 28 [sic] must be held as being directed towards ineligible subject matter under section 101.

Final Act. 9–11 (emphasis added); *see also* Final Act. 11–16 (addressing claims 14, 15, 19–25, 27, and 29–34); Ans. 18–25.

Appellant presents, among other arguments, the following principal argument:

> Moreover, the claimed invention significantly improves the functioning of a particular computer technology. See, e.g., *McRO, Inc. v. Bandai Namco Games Am. Inc.*, [837 F.3d 1299 (Fed. Cir. 2016)]; *Alice*, [134 S. Ct.] at 2358. In particular, embodiments of the claimed methods provide specific improvements to the management of video content in a video content network, as discussed in the [S]pecification at, p. 1:3-5; p., 2:15-3:2; p. 3:23-28; p. 5:3-16, with reference to FIG. 1; p. 8:1-19, with reference to FIGS. 1A-1C; p. 10:26-29, with reference to FIGS. 1-1C; p. 12:11-21; p. 15:12-17; p. 16:12-15 and 20-29; p. 19:29-20:3; p. 24:30-25:4; and p. 30:23-31:14. In the present application, "the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014). Thus, "the claims are directed to a specific implementation of a solution to a problem in the software arts. Accordingly, . . . the claims at issue are not directed to an abstract idea." *Enfish[, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016)].

App. Br. 16; *see also* Reply Br. 7.

*Our Review*

In *Alice*, the Supreme Court applied the framework as set forth in *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66 (2012) for determining whether the claims are directed to patent-eligible subject matter. *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to "determine whether the claims at issue are directed to one of [the judicially-recognized] patent-ineligible concepts." *Id.* If the claims are directed to a patent-ineligible concept, then the second step in the analysis is to consider the elements of the claims "individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* (quoting *Mayo*, 566 U.S. at 78, 79). However, the Federal Circuit has articulated that "the first step in the *Alice* inquiry . . . asks whether the focus of the claims is on the specific asserted improvement in computer capabilities . . . or, instead, on a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *Enfish*, 822 F.3d at 1335–36. Accordingly, the Federal Circuit determined, if "the claims are directed to a specific implementation of a solution to a problem in the software arts," then "the claims at issue are not directed to an abstract idea." *Id.* at 1339.

In the "Background of the Invention" section, Appellant's Specification discloses the following:

> A video content network, such as a cable television network, may provide many different services; for example, free on demand, movies on demand, subscription video on demand, switched digital video, and the like. *Sessions within each of these services require limited resources*. Each type of service may be associated with a different fee structure.

Spec. 2:8–12 (emphasis added).

In the "Summary of the Invention" section, Appellant's Specification discloses the following:

> In one aspect, an exemplary method includes the step of receiving, from one of a plurality of terminals in a service group of a video content network, a request to establish a session with a head end of the network. The video content network provides at least first and second different categories of sessions to the service group. An additional step includes evaluating the request against a policy. The policy specifies a maximum utilization threshold for sessions of the first category and a maximum utilization threshold for sessions of the second category. A further step includes granting the request if it is in conformance with the policy.

Spec. 2:15–23; *see also id.* at 27:19–25 (describing example of policy for different categories of sessions).

We agree with Appellant that "embodiments of the claimed methods provide specific improvements to the management of video content in a video content network." App. Br. 16. Appellant's claim provides more than merely allocating limited resources or decision making based on stored rules; rather, Appellant's claim provides evaluating requests to establish sessions against policies, and granting or denying the requests in response to the evaluating, in a video content network. Importantly, these session requests and policies *do not exist* without the improved computer technology of the video content network.

To the extent Appellant's claimed invention is considered an abstract idea, although we find that it is not, such claimed invention is a "specific asserted improvement in computer capabilities" rather than "a process that qualifies as an 'abstract idea' for which computers are invoked merely as a tool." *See Enfish*, 822 F.3d at 1335–36. Accordingly, because "the claims are directed to a specific implementation of a solution to a problem in the

software arts," claim 1 is not directed toward an abstract idea. *See id.* at 1339. Therefore, the § 101 inquiry ends here.

Accordingly, we do not sustain the rejection of independent claim 1 under 35 U.S.C. § 101. We also do not sustain the rejection of claims 8–15, 19–27, and 29–34 for the same reasons discussed with respect to claim 1.

THE INDEFINITENESS REJECTION OF CLAIM 24

*Contentions*

The Examiner concludes claim 24 is indefinite. Final Act. 16–17. In particular, the Examiner concludes:

> Page 20, at lines 11-12 recites that "The Session Resource Manager functionality may reside on a single component such as a VOD server *or may be spread across multiple components*". No indication of what structure is included by the recitation "spread across multiple components" is provided in the disclosure. The disclosure is so open ended in this regard that it cannot be definitively established that the "multiple components" are explicitly some form of programmed computer as Applicant alleges. Therefore as the disclosure describes the supporting structure in an open-ended fashion that is not confined to a programmed computer it cannot clearly be established as to what establishes the metes and bounds of the claim.

*Id.*; *see also* Ans. 25–27.

Appellant presents the following principal argument:

> While the present disclosure states that the session resource manager functionality may reside on a single component or on multiple components, the disclosure provides well-defined alternative embodiments to illustrate the two different approaches to implementing the session resource manager functionality. For example, the [S]pecification, p. 14:27-29, defines illustrative embodiments of the session resource manager functionality residing on both single and multiple

> components, stating: "In some instances, the SRM functionality resides physically on the VOD server 105, while *in other cases it is split between two entities, the VOD server 105 and a session resource manager of the DNCS 308.*" (emphasis added). This embodiment, shown in FIG. 3, clearly defines a multiple-component implementation of the session resource manager functionality in a fashion which is not open-ended. As such, it will be apparent to a person having ordinary skill in the art that previously-presented claim 24, particularly when read in view of the present disclosure, is not indefinite under §112, second paragraph.

App. Br. 20; *see also* Reply Br. 9–10.

*Our Review*

Appellant's Specification discloses: "In some instances, the SRM functionality resides physically on the VOD server 105, while in other cases it is split between *two entities*, the VOD server 105 and a session resource manager of the DNCS 308." Spec. 14:27–29 (emphasis added).

But turning to claim 24, claim 24 is an apparatus claim reciting *six "means for" elements*. We agree with the Examiner that claim 24 is indefinite for the reasons given by the Examiner, and because we do not readily see corresponding structure in the Specification for each of the recited "means for" elements of claim 24.

We, therefore, sustain the Examiner's rejection of claim 24 under pre-AIA 35 U.S.C. § 112, second paragraph, as being indefinite.

THE ANTICIPATION REJECTION OF CLAIMS 1, 8–11, 13–15, 19–21, 23–25, AND 29–34 BY RODRIGUEZ

*Contentions*

The Examiner finds Rodriguez describes all limitations of claim 1. Final Act. 18–20; *see also* Ans. 27–29.

In particular, the Examiner finds Rodriguez describes

> evaluating, by a session resource manager apparatus coupled to said network, said first request against a policy, said policy specifying a maximum utilization threshold for sessions of said first category as a maximum allowable number of said sessions of said first category and a maximum utilization threshold for sessions of said second category as a maximum allowable number of said sessions of said second category, said evaluating of said first request against said policy comprising determining whether granting said first request would cause said maximum allowable number of said sessions of said first category to be exceeded[;]
>
> . . . evaluating, by said session resource manager apparatus coupled to said network, said second request against said policy, said evaluating of said second request against said policy comprising determining whether granting said second request would cause said maximum allowable number of said sessions of said second category to be exceeded;

as recited in claim 1. Final Act. 18–19 (Rodriguez 7:25–26, 46–50, 8:14–19, 11:42–53, 12:3–11, 16:3–6, 64–66, 20:3–13, 21:37, 62–66, 24:5–8).

Appellant presents the following principal argument:

"[W]hile the methodology taught by Rodriguez is able to condition a decision as to whether to deliver a requested service based on a *total* available bandwidth determination, Rodriguez fails to teach or even suggest the use of *multiple maximum utilization thresholds for different categories of sessions*" as recited in claim 1. App. Br. 21. "[T]he methodology taught by

Rodriguez is not able to reserve a prescribed amount of bandwidth for particular categories of service. Instead, service requests are granted, *without regard for the category (i.e., type) of service*, until the overall available bandwidth limit has been reached." App. Br. 22.

> By maximizing the total number of subscriber requests fulfilled or, alternatively, maximizing the total revenue generated, without evaluating the type of content delivery requested for a given session, the DBDS system of Rodriguez cannot achieve the same level of control over the multiple categories of video and data service sessions established between a corresponding terminal/service group and the head end.

App. Br. 23; *see also* Reply Br. 11–12.

*Our Review*

Rodriguez discloses:

> Methods and systems are provided for dynamically pricing viewing options in a digital broadband communication network by receiving bandwidth allocation information from a bandwidth allocation manager and dynamically assigning a price criterion to each of a group of viewing options based at least in part on the bandwidth allocation information. The group of viewing options may, for example, comprise a reservation option, a normal-play option, a random access option, an on-demand random access option, and an adjust preference option.

Rodriguez, Abstract. Rodriguez further discloses: "The bandwidth allocation manager 125 uses the allocation criteria to determine a bandwidth allocation schedule that divides the available bandwidth between the different types of DTCs for each period in time." Rodriguez 16:3–6.

Rodriguez elaborates:

> The procedures for requesting and delivering of a VOD service can be quite complex, especially when there are more requests than there are available VOD bandwidth resources.

> Advantageously, according to one aspect of invention, the bandwidth allocation manager 125 eliminates some of these problems by *dynamically determining bandwidth allocation based on subscriber criteria*. Because the bandwidth is not pre-allocated to certain types of DTCs that transmit content according to predetermined delivery modes, the bandwidth allocation manager can dynamically adjust bandwidth allocation in response to a subscriber criterion. This allows the bandwidth allocation manager 125 to either set up a VOD session according to several well-known methods such as that described above, or to choose an alternative delivery method to broadcast the requested VOD service without necessitating a VOD session. *For example, since the bandwidth allocation manager 125 receives the subscriber request prior to determining a bandwidth allocation schedule, the bandwidth allocation manager 125 has the option to fulfill the request using any available bandwidth*. Hence, if no or a small number of subscribers have requested a particular movie that is planned to be transmitted according to a pay-per-view model, then the bandwidth allocation manager can "recapture" that bandwidth and allocate it to fulfill a subscriber request during the same time period if it is to result in a more financially advantageous bandwidth allocation.

Rodriguez 17:46–18:5 (emphasis added).

Thus, Appellant's arguments persuade us that the Examiner erred in finding Rodriguez describes

> evaluating, by a session resource manager apparatus coupled to said network, said first request against a policy, said policy specifying a maximum utilization threshold for sessions of said first category as a maximum allowable number of said sessions of said first category and a maximum utilization threshold for sessions of said second category as a maximum allowable number of said sessions of said second category, said evaluating of said first request against said policy comprising determining whether granting said first request would cause said maximum allowable number of said sessions of said first category to be exceeded;

> evaluating, by said session resource manager apparatus coupled to said network, said second request against said policy, said evaluating of said second request against said policy comprising determining whether granting said second request would cause said maximum allowable number of said sessions of said second category to be exceeded;

as recited in claim 1 because Rodriguez's option to fulfill the request using *any* available bandwidth does not indicate a maximum allowable number of sessions for a first category and a maximum allowable number of sessions for a second category. In contrast, and as argued by Appellant, Rodriguez permits the fulfillment of a request using *any* available bandwidth without the policy restrictions required by claim 1.

We, therefore, do not sustain the Examiner's anticipation rejection of claim 1. We also do not sustain the Examiner's rejection of claims 8–11 and 13, which depend from claim 1.

We also do not sustain the Examiner's anticipation rejection of independent claims 14 and 23–25, for the same reasons discussed above with respect to claim 1. We also do not sustain the Examiner's anticipation rejection of claims 15, 19–21, and 29–34, which variously depend from claims 14 and 23.

THE OBVIOUSNESS REJECTION OF CLAIMS 12, 22, 26, AND 27 OVER RODRIGUEZ AND SCHLACK

The Examiner does not find Schlack cures the deficiency of Rodriguez discussed above when addressing claim 1. *See* Final Act. 22–24; *see also* Ans. 29–30.

We, therefore, do not sustain the Examiner's rejection of claims 12, 22, 26, and 27.

## DECISION

The Examiner's decision rejecting claims 1, 8–15, 19–23, 25–27, and 29–34 is reversed.

Because we sustain one ground of rejection for claim 24, the Examiner's decision rejecting claim 24 is affirmed.

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).

AFFIRMED-IN-PART