



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

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 12/889,824, 09/24/2010, Stephen Gold, 82264616, 7060
Row 2: 56436, 7590, 06/23/2016, [Empty], [Empty]
Row 3: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 4: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 5: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 6: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 7: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 8: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 9: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 10: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 11: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 12: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 13: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 14: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 15: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 16: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 17: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 18: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 19: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 20: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 21: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 22: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 23: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 24: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 25: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 26: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 27: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 28: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 29: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 30: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 31: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 32: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 33: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 34: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 35: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 36: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 37: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 38: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 39: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 40: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 41: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 42: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 43: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 44: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 45: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 46: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 47: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 48: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 49: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 50: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 51: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 52: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 53: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 54: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 55: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 56: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 57: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 58: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 59: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 60: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 61: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 62: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 63: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 64: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 65: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 66: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 67: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 68: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 69: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 70: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 71: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 72: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 73: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 74: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 75: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 76: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 77: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 78: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 79: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 80: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 81: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 82: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 83: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 84: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 85: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 86: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 87: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 88: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 89: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 90: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 91: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 92: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 93: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 94: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 95: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 96: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 97: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 98: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 99: [Empty], [Empty], [Empty], [Empty], [Empty]
Row 100: [Empty], [Empty], [Empty], [Empty], [Empty]

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):

- hpe.ip.mail@hpe.com
mkraft@hpe.com
chris.mania@hpe.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEPHEN GOLD, JEFFREY S. TIFFAN, and
SRI HARSHAN KAPANIPATHI

Appeal 2015-000924
Application 12/889,824
Technology Center 2100

Before JOHN A. EVANS, MELISSA A. HAAPALA, and
MONICA S. ULLAGADDI, *Administrative Patent Judges*.

HAAPALA, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from a rejection of claims 1–15 and 17–21.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

¹ Claim 16 has been canceled. App. Br. 2.

INVENTION

Appellants' invention is directed to managing virtual storage resources for backup. Spec. ¶ 6. Claim 1 is exemplary of the subject matter on appeal:

1. A method of managing virtual storage resources, comprising:

receiving parameters input by a user to a user application, and parameters defined by the user application, wherein the user application is a backup manager, the parameters input by the user and the parameters defined by the user application define one or more characteristics for a backup job;

analyzing the parameters of a plurality of backup jobs over time to model backup lifecycle;

estimating size of available storage capacity over time based on the modeled backup lifecycle; and

identifying storage options using the available storage capacity on an ongoing basis for future backup jobs.

REJECTIONS ON APPEAL²

Claims 9–15 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1–3, 9, 11, 12, 14, 15, 17, and 20 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Spackman (US

² The Examiner withdrew the 35 U.S.C. § 112 rejection of claims 20 and 21. Ans. 3.

2011/0016088 A1; Jan. 20, 2011) and Helliker (US 2005/0262168 A1; Nov. 24, 2005).³⁴

Claims 4, 5, and 13 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Spackman, Helliker, and Gold (US 2005/0081096; Apr. 14, 2005).

Claims 6–8, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Spackman, Helliker, and Korman (US 2007/0294206 A1; Dec. 20, 2007).

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Spackman, Helliker, and Chang (US 2005/0050055 A1; Mar. 3, 2005).

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being obvious over the combination of Spackman, Helliker, and Anand (US 2007/0283017 A1; Dec. 6, 2007).

ISSUES

Appellants' contentions present us with the following issues:

A) Did the Examiner err in finding claims 9–15 are directed to non-statutory subject matter?

B) Did the Examiner err in finding the combination of Spackman and Helliker teaches or suggests *receiving parameters input by a user to a user application*, and *parameters defined by the user application*, wherein the

³ The header of this rejection omits claim 20. *See* Non-Final Act. 4. Because the body of the rejection includes findings directed to this claim, we determine this to be a harmless typographical error. *See* Non-Final Act. 8.

⁴ Appellants incorrectly characterize this rejection as an anticipation rejection under 35 U.S.C. § 102(e). *Compare* App. Br. 7 with Non-Final Act. 4.

parameters define[] . . . one or more characteristics for a backup job
 (“parameters” limitation), as set forth in independent claim 1?

C) Did the Examiner err in finding the combination of Spackman and Helliker teaches or suggests the limitations recited in dependent claim 20?

D) Did the Examiner err in finding the combination of Spackman, Helliker, and Korman teaches or suggests the limitations recited in dependent claim 18?

E) Did the Examiner err in finding the combination of Spackman, Helliker and Korman teaches or suggests the limitations recited in dependent claim 19?

F) Did the Examiner err in finding the combination of Spackman, Helliker, and Anand teaches or suggests the limitations recited in dependent claim 21?

ANALYSIS

We have reviewed the Examiner’s rejections in consideration of Appellants’ contentions and the evidence of record. We disagree with Appellants’ conclusions that the Examiner’s 35 U.S.C. § 101 rejection and 35 U.S.C. § 103(a) rejections of claims 1–15, 17, 20, and 21 are in error. Appellants have persuaded us the Examiner has failed to establish that claims 18 and 19 are obvious over the cited prior art.

Issue A: 35 U.S.C § 101 Rejection

The Examiner finds claims 9–15 are directed to non-statutory subject matter because the claims do not recite the necessary physical articles or objects to constitute a machine or manufacture. Non-Final Act. 2. Specifically, the Examiner finds the “computer-readable medium” recited in the preamble of the claim encompasses transitory subject matter. Ans. 4.

The Examiner further finds the processor is not positively recited in the claim, and, therefore the claims are directed to only logic elements. Ans. 3–4.

Appellants contend the non-statutory rejection is in error because the claims recite logic instructions *executable by a processor and stored on a computer-readable medium*. App. Br. 5; *see also* Reply Br. 6⁵. We are not persuaded by this argument. For all statutory categories, except process claims, the eligible subject matter must exist in some physical or tangible form. *See Digitech Image Tech., LLC v. Elec. for Imaging, Inc.*, 758 F.3d 1344, 1348 (Fed. Cir. 2014). We agree with the Examiner that the claim encompasses non-physical embodiments because the processor is not part of the system and the broadest reasonable interpretation of “computer-readable medium” encompasses transitory signals. *See Ex parte Mewherter*, 107 USPQ2d 1857, 1862 (PTAB 2013) (precedential). Accordingly, we sustain the 35 U.S.C. § 101 rejection of claims 9–15.

Issue B: Obviousness Rejection of Claims 1–15 and 17

Appellants contend Spackman does not disclose the “parameters” limitation recited in claim 1. App. Br. 8–10.⁶ In particular, Appellants argue none of the parameters in Spackman are input by a user or defined by

⁵ Appellants additionally argue the Examiner appears to make a new ground of rejection in the Answer without so labeling the rejection. Reply Br. 3. We remind Appellants that the Board normally only considers matters affecting the merits of the invention, i.e., the rejections of claims. *See* 37 C.F.R. § 41.31(c). Matters not affecting the merits of the invention, such as failure to designate a new ground of rejection, are to be raised by petition to the Director or to the PTO Official to whom the Director has delegated the authority to determine the petition. *See* 37 C.F.R. §§ 1.181–183.

⁶ *See supra* note 4.

the user application. App. Br. 9; Reply Br. 5. Appellants further argue none of the criteria in Helliker are defined by the user application. App. Br. 9; Reply Br. 5. We are not persuaded by these arguments.

The Examiner finds Spackman teaches receiving parameters input by a user to a user application, Helliker teaches receiving parameters defined by the user application, and the parameters taught by both references define one or more characteristics of a backup job. Non-Final Act. 4–5; *see also* Ans. 6–7. The cited sections of Spackman describe a user interface module 310 that comprises an input module 410, which includes a policy module 411 that elicits backup load characterization, restore load characterization, and performance requirements (parameters defining characteristics of a backup job) from a system administrator (user). Spackman ¶¶ 38, 40. Thus, we agree with the Examiner that Spackman teaches receiving the claimed parameters input by a user. We further agree that Helliker teaches the claimed parameters defined by the user application. The cited section of Helliker describes a scheduling manager program (application) that initiates a backup according to a predetermined schedule, the amount of usage of a particular network computer, or according to any other desired criteria (parameters defined by the user application). Helliker ¶ 99. Although, Helliker describes the parameters are defined by a network manager, we observe that after they are input, the parameters are defined in the program and used to initiate backup jobs. *Id.* Appellants do not provide persuasive argument or evidence that the broadest reasonable interpretation of “defined by the user application” does not encompass such parameters.

For the reasons stated above, Appellants do not persuade us the Examiner errs in finding the combination of Spackman and Helliker teaches

or suggests the “parameters” limitation. Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of: (i) claim 1; (ii) independent claim 9, for which Appellants rely on the same arguments made for claim 1 (*see* App. Br. 11); and (iii) dependent claims 2, 3, 11, 12, 14, 15, and 17, for which Appellants do not present separate arguments for patentability (*see* App. Br. 10–11). We further sustain the 35 U.S.C. § 103(a) rejections of dependent claims 4–6, 7, 8, 10, and 13, for which Appellants rely on the arguments made for claim 1 (*see* App. Br. 11–12, 14).

Issue C: Obviousness Rejection of Claim 20

Appellants contend the rejection of claim 20 is in error because Spackman does not teach *analyzing post processing working*. App. Br. 10–11; Reply Br. 6. In particular, Appellants argue the post processing working space is not a log. App Br. 10–11 (citing Spec. ¶ 2). We are not persuaded by this argument.

The Examiner finds, and we agree, that Appellants do not provide a specific definition of “post processing working space.” Ans. 8. Paragraph two of the Specification does not provide a definition of the disputed claim term, but merely sets forth “when using a deduplication-enabled VLS product with post processing, the deduplication process may use additional storage capacity for the post-processing.” *See* Spec. ¶ 2. We agree with the Examiner the cited portion of Spackman describes a log that is being used to perform an analysis of the backup jobs over time (post processing). Ans. 8 (citing Spackman ¶ 32). In the absence of a narrowing definition, Appellants do not persuade us that the broadest reasonable interpretation of *post processing working space* does not encompass the log described in Spackman. Accordingly, Appellants fail to persuade the Examiner errs in

finding the combination of Spackman and Helliker teaches or suggests the disputed limitation of claim 20 and we sustain the 35 U.S.C. § 103(a) rejection of this claim.

Issue D: Obviousness Rejection of Claim 18

Claim 18 recites *wherein analyzing further comprises including how much and when storage space is returned to an available storage pool*. The Examiner finds Korman describes a rate of change that teaches the claimed ‘how much’ of the claim and time describes the ‘when’ recited in the claim. Ans. 10–11 (citing Korman ¶ 41).

Appellants argue Korman does not teach the disputed limitation because Korman describes measuring storage capacity and calculating a rate of storage consumption to predict when the capacity will be depleted. App. Br. 12; Reply Br. 7. We agree. Korman describes “the prediction engine can calculate a rate of change *of the remaining storage capacity*.” Korman ¶ 41; *see also* Korman ¶¶ 42–43. The cited sections do not describe returning storage space to a storage pool. Accordingly, Appellants persuade us that the Examiner has not established the combination of Spackman, Helliker, and Korman teaches or suggests the disputed limitation of claim 18 and we do not sustain the 35 U.S.C. § 103(a) rejection of this claim.

Issue E: Obviousness Rejection of Claim 19

The Examiner finds Korman teaches claim 19’s limitation *wherein analyzing further comprises including storage space not immediately returned and not returned at all to a storage pool even after a reclaiming operation*. Ans. 11 (citing Korman ¶ 41). For similar reasons as that discussed in Issue D, we agree with Appellants’ argument (App. Br. 13) that the cited section of Korman does not describe analyzing storage space

returned/not returned after a reclaiming operation. *See* Korman ¶ 41. Accordingly, the Examiner has not established the combination of Spackman, Helliker, and Korman teaches or suggests the disputed limitation of claim 19, and we do not sustain the 35 U.S.C. § 103(a) rejection of this claim.

Issue F: Obviousness Rejection of Claim 21

Appellants contend Anand does not teach *receiving a user definition of maximum bandwidth and service level indicating how long before a backup job is safely replicated*, as recited in claim 21, because “percentage of bandwidth and frequency of sync does not disclose a **service level** indicating how long before a backup job is **safely replicated**.” App. Br. 14. Appellants argue “Anand does not disclose anywhere that ‘frequency’ is a service level as alleged by the Examiner.” Reply Br. 8.

Appellants’ arguments do not persuade us of error. We agree with the Examiner that Appellants describe the safeness of the backup job is defined by the maximum bandwidth and the service level. Ans. 12; *see also* App. Br. 7 (“**the user defines maximum bandwidth and service level** which indicate how long before a backup job is safely replicated.”). We further agree that Anand describes a user can specify the percentage of network bandwidth and the frequency of synchronization. Non-Final Act. 13 (citing Anand ¶ 34). The Examiner finds the frequency described by Anand teaches the claimed service level. Appellants do not provide persuasive argument or evidence why the broadest reasonable interpretation of “service level” does not encompass “frequency of synchronization.” Accordingly, we sustain the 35 U.S.C. § 103(a) rejection of claim 21.

DECISION

We affirm the Examiner's decision to reject claims 9–15 under 35 U.S.C. § 101.

We affirm the Examiner's decision to reject claims 1–15, 17, 20, and 21 under 35 U.S.C. § 103(a).

We reverse the Examiner's decision to reject claims 18 and 19 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED-IN-PART