UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

20/20 VISION CENTER, LLC, Petitioner,

v.

DIGITALOPTOMETRICS LLC, Patent Owner.

> Case PGR2018-00100 Patent 9,980,644 B2

Before PATRICK M. BOUCHER, CHRISTOPHER G. PAULRAJ, and MATTHEW S. MEYERS, *Administrative Patent Judges*.

MEYERS, Administrative Patent Judge.

DECISION Granting Institution of Post Grant Review 35 U.S.C. § 324(a)

I. INTRODUCTION

A. OVERVIEW

20/20 Vision Center, LLC ("Petitioner") filed a Petition requesting a post grant review of claims 1–20 of U.S. Patent No. 9,980,644 B2 (Ex. 1001, "the '644 patent").¹ Paper 2 ("Pet."). DigitalOptometrics LLC ("Patent Owner") filed its Mandatory Notices in response to the Petition (Paper 5), but did not file an optional Preliminary Response. *See* 37 C.F.R. § 42.207 ("The patent owner *may* file a preliminary response to the petition.") (emphasis added).²

Institution of post grant review is authorized by statute only when "the information presented in the petition . . . demonstrate[s] that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable." 35 U.S.C. § 324; *see* 37 C.F.R. § 42.4. Petitioner challenges the patentability of the '644 patent under 35 U.S.C. §§ 101, 112(a), 112(b), 102, and 103. After considering the Petition, as well as all supporting evidence, we conclude that Petitioner has satisfied its burden under 35 U.S.C. § 324 to show that it is more likely than not that at least 1 of the claims challenged in the Petition is unpatentable.

B. RELATED PROCEEDINGS

Petitioner and Patent Owner represent that the '644 patent is not involved in any other matters. Pet. 1; Paper 5, 2.

¹ Petitioner identifies 20/20 Vision Center, LLC as the real party in interest. Pet. 1.

² Patent Owner identifies DigitalOptometrics LLC as the real party in interest. Paper 5, 2.

C. THE '644 PATENT (EX. 1001)

The '644 patent is titled "REMOTE COMPREHENSIVE EYE EXAMINATION SYSTEM." Ex. 1001, (54). The '644 patent relates to a remote-based eye testing system that does not require an optometrist or ophthalmologist, i.e., doctor, to be on-site when a patient receives a comprehensive eye examination. *Id.* at 1:64–66. More particularly, the '644 patent discloses that

[i]nstead, an ophthalmic technician is present with the patient in the exam room to operate eye examination equipment and transmit patient information to [a] remote location. At that remote location, a skilled technician is present to provide the necessary optical and/or medical care, and may operate the phoropter from the remote location if he/she desires. Using video and/or teleconferencing equipment and a phoropter located in the patient examination room along with management software, the system works to determine the final optical prescription for the patient. That information, coupled with findings from other devices which are integrated with the management software, and that the patient uses locally, are reviewed by a remote based optometrist or ophthalmologist. While the patient is being evaluated for eyeglasses or contacts, the optometrist or ophthalmologist may also operate the phoropter located in the patient examination room from the remote location if he/she desires and evaluate the patient for other ocular-related medical issues. Once the findings are finalized by the optometrist or ophthalmologist remotely, the final prescription for eyeglasses and/or contact lenses, along with any additional comments or findings, will print locally at the examination location and be delivered to the patient.

Id. at 1:67–2:23.

The '644 patent describes that its system comprises "exam site **1100**, central server (exam site and remote technician connection) **1200**, remote

technician **1300**, remote doctor **1400**, and central server (remote doctor connection) **1500**." *Id.* at 8:22–26. In this regard, the '644 patent describes that the patient, the local technician, and the phoropter are located at the exam site or local diagnostic center. *Id.* at 9:28–45, 14:41–44, 17:38–40. The '644 patent discloses that "[t]he local technician in the system is always physically located at the exam site. The local technician takes care of registering the patient, collecting patient history, and walking the patient through the entire exam process." *Id.* at 19:63–66. The '644 patent further discloses that "[t]he local technician also performs the initial pre-refraction tests prior to the actual refraction by a remote technician and the final review by a remote doctor." *Id.* at 19:66–20:2.

The '644 patent also discloses that "[t]he remote technicians in the system are responsible for performing the subjective refraction part of the eye exam prior to the patient being transferred to the remote doctor." *Id.* at 25:17–19. The '644 patent discloses "[t]he remote doctors in the system are responsible for evaluating the results of all tests performed during the eye examination process and they may optionally verify or refine the subjective refraction performed by the remote technician." *Id.* at 28:42–46. The '644 patent describes that both the remote technician and the remote doctor may control the phoropter equipment located at the exam site from their respective remote locations. *See id.* at 25:20–23, 48:46–49.

The '644 patent discloses that "in some embodiments, the eyecare doctor, the remote technician and the local technicians are in different locations." *Id.* 17:48–50. However, the '644 patent also discloses that while the patient and the local technician are located together, at a local diagnostic center, the remote technician and the remote doctor may be located at the

same remote location, i.e., "[t]he patient is then assigned to a remote eyecare technician (possibly by the local technician), where the remote eyecare technician is located at *a first remote diagnostic center*. The patient is finally assigned (possibly by the local technician) to a eyecare doctor, where the eyecare doctor is located at *a second remote diagnostic center*, which may or may not be the same remote diagnostic center as the first remote diagnostic center." *Id.* at 17:38–50 (emphases added).

D. ILLUSTRATIVE CLAIMS

Petitioner challenges claims 1–20 of the '644 patent. Claims 1 and 12 are independent claims. Independent claim 1 is illustrative of the challenged claims, and is reproduced below:

1. A method comprising:

assigning a patient to a local eyecare technician, wherein the patient and the local eyecare technician are located at a local diagnostic center;

assigning, by the local eyecare technician, the patient to a remote eyecare technician, wherein the remote eyecare technician is located at a remote diagnostic center;

collecting, by the local eyecare technician, medical history for the patient;

administering, by the local eyecare technician, prerefraction tests on the patient to produce pre-refraction results for the patient;

transmitting the medical history for the patient and the prerefraction results for the patient to the remote eyecare technician;

administering, by the remote eyecare technician, refraction tests on the patient to produce refraction results for the patient; and

transmitting to an eyecare doctor the medical history for the patient, the pre-refraction results for the patient and the refraction results for the patient.

Id. at 17:39-53.

E. EVIDENCE AND ASSERTED GROUNDS OF UNPATENTABILITY

Petitioner challenges the patentability of claims 1-20 of the

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No.	Claims	Basis	Reference(s) if Applicable
1	1–11	§ 101	
2	2–20	§ 112(b)	
3	12–20	§ 112(a) -	
		enablement	
4	1–7, 10–14, and 17–20	§ 102	Seriani ³ (Ex. 1003)
5	1-7, 10-14, and 17-20	§ 103(a)	Seriani
6	8, 9, 15, and 16	§ 103(a)	Seriani and Cox ⁴ (Ex. 1004)
7	20	§ 103(a)	Seriani and Kangarloo ⁵ (Ex. 1005)

Petitioner submits the Declaration of Dr. Michael Schuette (Ex. 1006) in support of institution of post grant review.

II. ANALYSIS

A. ELIGIBILITY OF PATENT FOR POST-GRANT REVIEW

The post-grant review provisions of the Leahy-Smith America Invents Act ("AIA")⁶ apply only to patents subject to the first inventor to file provisions of the AIA. AIA § 6(f)(2)(A). Specifically, the first inventor to

³ U.S. 9,230,062 B2 issued Jan. 5, 2016.

⁴ U.S. 6,499,843 B1 issued Dec. 31, 2002.

⁵ U.S. 2009/0228299 A1, mailed Sept. 10, 2009.

⁶ Pub L. No. 112-29, 125 Stat. 284 (2011).

file provisions apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time a claim to a claimed invention that has an effective filing date on or after March 16, 2013. AIA § 3(n)(1). Furthermore, "[a] petition for a post-grant review may only be filed not later than the date that is 9 months after the date of the grant of the patent or of the issuance of a reissue patent (as the case may be)." 35 U.S.C. § 321(c); *see also* 37 C.F.R. § 42.202(a) (setting forth the same).

Petitioner asserts "that the '644 patent is available for PGR and Petitioner is not barred or estopped from requesting PGR of the challenged claims of the '644 patent." Pet. 2. The issue date of the '644 patent is May 29, 2018 (Ex. 1001 (45)) and the Petition was filed on September 14, 2018.⁷ On this record, we agree with Petitioner that the '644 patent is eligible for post-grant review.

B. PERSON OF ORDINARY SKILL IN THE ART

Factual indicators of the level of ordinary skill in the art include "the various prior art approaches employed, the types of problems encountered in the art, the rapidity with which innovations are made, the sophistication of the technology involved, and the educational background of those actively working in the field." *Jacobson Bros., Inc. v. U.S.*, 512 F.2d 1065, 1071 (Ct. Cl. 1975); *see also Orthopedic Equip. Co., v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983) (quoting with approval *Jacobson Bros.*).

Petitioner contends that the person of ordinary skill "would have a bachelor's degree in ophthalmology, or a similar field, with approximately

⁷ The '644 patent claims priority to U.S. Provisional Application No. 62/394,369, which was filed on September 14, 2016. Ex. 1001, (60).

two years of industry experience relating to optometry or ophthalmology. Additional graduate education might substitute for experience, while significant experience in the field of optometry/ophthalmology might substitute for formal education." Pet. 9 (citing Ex. 1006 ¶¶ 15–20). At this stage in the proceeding, Patent Owner does not challenge Petitioner's definition. Accordingly, for purposes of this Decision and based on the present record, we accept Petitioner's definition, which is consistent with the level of skill reflected in the asserted prior art references. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art itself can reflect the appropriate level of ordinary skill in the art).

C. CLAIM INTERPRETATION

In a post-grant review, a claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears. 37 C.F.R. § 42.200(b); *see also Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016).⁸ For the purposes of this Decision, and on this record, we determine that only the following claim elements need explicit interpretation. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (only those terms which are in controversy need to be construed, and only to the extent necessary to resolve the controversy).

⁸ The broadest reasonable interpretation ("BRI") construction standard applies to post grant reviews filed before November 13, 2018. 77 Fed. Reg. 48727 (Aug. 14, 2012) (codified at 37 C.F.R. § 42.100(b)), as amended at 81 Fed. Reg. 18766 (Apr. 1, 2016); *see also* 83 Fed. Reg. 51340 (Oct. 11, 2018) (changing the standard for interpreting claims in *inter partes* reviews filed on or after November 13, 2018). Because the Petition was filed prior to this date, on September 14, 2018, the BRI construction standard applies.

Petitioner proposes two claim terms be construed: "[d]ifferent [l]ocations" and "[e]yecare [t]echnician/[d]octor." Pet. 9–12. Under the broadest reasonable interpretation standard, and absent any special definitions, we give claim terms their ordinary and customary meaning, as they would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). In interpreting claims, care must be exercised, as there is a fine line between interpreting claims in light of the specification, and reading limitations into the claims from the specification. *Comark Commc 'ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186–87 (Fed. Cir. 1998).

1. "Different Locations"

Dependent claim 2 recites that "the eyecare doctor, the remote technician and the local technicians are in different locations." Ex. 1001, 39:57–59.⁹

Independent claim 12 recites that "the eyecare doctor, the remote technician and the patient are in different locations." Ex. 1001, 41:6–7.

Petitioner argues that the term "different locations" should be construed to mean "that the patients/local technicians are not in the same physical location (e.g., not in the same room) as the remote technicians/doctors, but the remote technician and remote doctor can be at the same diagnostic center." Pet. 11 (citing Ex. 1006 ¶¶ 49–53). However, at this stage of the proceeding, on the record before us, we construe

⁹ We note that claims 3–9 each depends from claim 2 ultimately. *See* Ex. 1001, 39:60–30.

"different locations" according to its plain meaning, i.e., each of the parties is in a different location.¹⁰

2. "Eyecare Technician/Doctor"

Petitioner argues that the terms "[local/remote] eyecare technician" and "eyecare doctor" "should be construed as covering any eyecare individual who is licensed, qualified, or otherwise capable of, performing the steps recited in the challenged claims." Pet. 12 (citing Ex. 1006 ¶¶ 54–56). First, Petitioner contends that there is nothing in the nothing in the '644 patent that defines or "provide[s] any specific examples of the individuals who may qualify as an eyecare technician versus an eyecare doctor." Pet. 11. Second, according to Petitioner, the Specification explains that the tasks performed in the claims "may be performed by various eye doctors, providers, professionals, technicians, and clinicians." Pet. 12 (citing Ex. 1001, 5:20–30, 5:50–55, 6:50–57, 17:34–38, 17:51–31:67).

At this stage of the proceeding, on the record before us, we agree with Petitioner that it is reasonable to construe the terms "[local/remote] eyecare technician" and "eyecare doctor" to mean "any eyecare individual who is licensed, qualified, or otherwise capable of, performing the steps recited in the challenged claims." Under such a construction an "eyecare doctor," i.e., an optometrist or ophthalmologist, could act as or perform the duties of an

¹⁰ We note that independent claim 1 does not include a "different locations" limitation. Although claim 1 sets forth that "the patient and the local eyecare technician are located at a local diagnostic center" (Ex. 1001, 39:38–39) and "the remote eyecare technician is located at a remote diagnostic center" (*id.* at 39:41–42), claim 1 merely recites "transmitting [information] to an eyecare doctor" without any specificity as to the location of eyecare doctor. *Id.* at 39:54–56.

eyecare technician, as long as those roles do not require distinct licensure or qualification. The converse, however, would not necessarily be true. That is, an eyecare technician would not be able to act as or perform the duties of the "eyecare doctor."

On the current record, and for purposes of this Decision, we adopt Petitioner's construction of the terms "[local/remote] eyecare technician" and "eyecare doctor."

3. Remaining Claim Terms

We give all remaining claim terms their ordinary and customary meaning, and determine that it is not necessary to explicitly construe any other term or phrase. *See Vivid Techs.*, 200 F.3d at 803 ("[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.").

III. PATENTABILITY

A. 35 U.S.C. § 101 – PATENT ELIGIBILITY – GROUND 1

Petitioner contends that claims 1–11 are ineligible under 35 U.S.C. § 101. Pet. 14–23 (citing Exs. 1001, 1006).

1. Relevant Law

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[1]aws of nature, natural phenomena, and abstract ideas" are not patentable. *E.g., Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court's two-step framework, described in *Mayo*

and *Alice. Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that "[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula." *Diehr*, 450 U.S. at 176; *see also id.* at 191 ("We view respondents' claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula."). Having said that, the Supreme Court also indicated that a claim "seeking patent

protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 ("It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.").

If the claim is "directed to" an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 573 U.S. at 221 (quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea]." *Id.* (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

2. 2019 Revised Patent Subject Matter Eligibility Guidance

The PTO recently published revised guidance on the application of § 101. 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("2019 Revised Guidance"). Under the Guidance, we first look to whether the claim recites:

(1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not "well-understood, routine, conventional" in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

See 2019 Revised Guidance.

3. Whether the Claims Are Directed to an Abstract Idea

With regard to the first step of the *Alice* and *Mayo* framework, Petitioner argues that claims 1–11 are patent ineligible because they are "directed to the idea of multiple individuals administering an eye examination," and thus, to an abstract idea. Pet. 14. Petitioner first asserts that the claims are directed to "a mental process for having three individuals participate, and share information, in an eye examination—that can be performed in the human mind and/or by humans using a pen and paper." Pet. 16. Petitioner also asserts that the claims are directed to "methods of organizing activities of individuals (i.e., the local and remote eyecare technicians and eye doctor) who are assisting with an eye examination and/or organizing/sharing information related to the eye examination." Pet. 16–17.

Viewed through the lens of the 2019 Revised Guidance, Petitioner's analysis depicts the claimed subject matter as one of the ineligible "[m]ental processes" that include "concepts performed in the human mind (including an observation, evaluation, judgment, opinion)" under Prong One of Revised Step 2A. Petitioner's analysis also depicts the claimed subject matter as one of the ineligible "[c]ertain methods of organizing human activity" that include "commercial . . . interactions," such as "advertising, marketing or sales activities or behaviors" and "business relations," as well as "managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions)." *See* 2019-Revised Guidance, 84 Fed. Reg. at 52.

The Federal Circuit has explained that "the 'directed to' inquiry applies a stage-one filter to claims, considered in light of the [S]pecification, based on whether 'their character as a whole is directed to excluded subject matter." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp.*, 790 F.3d at 1346).

According to the '644 patent "[a]ccess to comprehensive eye examinations is critical in determining not only corrective prescriptions for eyeglasses and contact lenses, but also in identifying potential diseases of the eye and body, such glaucoma, macular degenerations, and hypertension." *Id.* at 1:25–30. The '644 patent identifies, however, that "many [geographical] areas have a limited supply of optometrists and ophthalmologists" to perform these comprehensive eye examinations. *Id.* at 1:22–25, 2:36–39. To address this problem, the '644 patent provides a remote-based eye testing system which does not require an optometrist or ophthalmologist, i.e., eye doctor, to be on-site when a patient receives the comprehensive eye examination. Ex. 1001, 1:64–66. The '644 patent discloses that its remote-based eye testing system provides an "ophthalmic technician," who is present at a local examination room with a patient, "to operate eye examination equipment and transmit patient information to [a]

remote location." *Id.* at 1:67–2:3. The '644 patent's "remote station-based approach" provides patients with greater access to skilled optometrists/ophthalmologists, enables the optometrists/ophthalmologists better access to a larger potential pool of patients, and provides the local examination room, e.g., retail optical store/department with easier access to optometrists/ophthalmologists, which may otherwise be impractical and expensive from a business standpoint. *Id.* at 2:26–52.

Taking independent claim 1 as representative, the claimed subject matter generally recites a method including steps for "assigning a patient to a local eyecare technician," "assigning . . . the patient to a remote eyecare technician . . . at a remote diagnostic center," "collecting . . . medical history," "administering, by the local eyecare technician, pre-refraction tests," "transmitting the medical history . . . and the pre-refraction results . . . to the remote eyecare technician," "administering, by the remote eyecare technician, by the remote eyecare technician, to the remote eyecare technician," "administering, by the remote eyecare technician, the pre-refraction results for the pre-refraction tests," "transmitting to an eyecare doctor the medical history . . . , the pre-refraction results . . . [,] and the refraction results for the patient."

Thus, on the present record and in view of the claim limitations recited above, we agree with Petitioner that independent claim 1 is directed broadly to "multiple individuals administering an eye examination." Pet. 14. In this regard, we agree with Petitioner, on the present record, that the limitations of independent claim 1 "are all directed to methods of organizing activities of individuals (i.e., the local and remote eyecare technicians and eye doctor) who are assisting with an eye examination and/or organizing/sharing information related to the eye examination." Pet. 17. We find the present claim is similar to "[c]ertain methods of organizing human

activity," in particular "commercial . . . interactions," as well as "managing personal behavior or relationships or interactions between people" that our reviewing courts have found patent ineligible. Thus, the claimed method of organizing the interactions of individuals who are involved in the administration of an eye examination is similar to the concepts of intermediated settlement (*see Alice*, 573 U.S. at 219–22), creating a contractual relationship in guaranteeing performance of an online transaction (*see buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352, 1355 (Fed. Cir. 2014)), "verifying the validity of a credit card transaction over the Internet" (*CyberSource Corp.*, 654 F.3d at 1370), and using advertising as a currency on the Internet (*Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014)). *See* 2019 Revised Guidance, 84 Fed. Reg. at 52 (FN 13).

With respect to Prong Two of Step 2A, the 2019 Revised Guidance provides five "exemplary considerations" that "are indicative that an additional element (or combination of elements) *may have* integrated the exception into a practical application." 2019 Revised Guidance, 84 Fed. Reg. at 55 (emphasis added).¹¹ The 2019 Revised Guidance informs us that one exemplary consideration is whether "[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field." *Id.* (citing MPEP § 2106.05(a)). Here, Petitioner asserts "the '644 patent explains that the purported advantages

¹¹ We acknowledge that some of these considerations may be properly evaluated under Step 2 of *Alice* (Step 2B of Office guidance). Solely for purposes of maintaining consistent treatment within the Office, we evaluate them under Step 1 of *Alice* (Step 2A of Office guidance). *See* 2019 Revised Guidance, 84 Fed. Reg. at 55.

provided by its method are rooted in business concerns," and as such, its claims "do not improve the functioning of any computing devices or any other technology." Pet. 22.

The 2019 Revised Guidance informs us that another exemplary consideration is whether "an additional element implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim." 2019 Revised Guidance, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(b)). Here, Petitioner asserts that "independent claim 1 does not recite a single computing device, server or other piece hardware that is used in connection with the recited method for providing an eye examination." Pet. 18–19.

The 2019 Revised Guidance further informs us that another exemplary consideration is whether "an additional element applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception." *Id.* (citing MPEP § 2106.05(e)). Here, Petitioner asserts that "none of the claims are tied to physical elements or physical process steps. Indeed, many of the method steps explicitly recite that the step is performed manually by one of the three individuals assisting with the examination." Pet. 20. Petitioner further asserts that, beyond the abstract idea, independent claim 1 "does nothing more than (i) allocate conventional, manual activities performed during traditional eye examinations amongst three different individuals; and (ii) indicate that examination information is passed between these individuals." Pet. 22–23. At this stage of the proceeding, we are persuaded that Petitioner has shown sufficiently, that independent claim 1 of the '644 patent is directed to an abstract idea. And, when viewed through the lens of the 2019 Revised Guidance, does not integrate the abstract idea into a practical application. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55.

3. Whether the Claims Contain an "Inventive Concept"

We next turn to second step of the *Alice* and *Mayo* framework. Here, we 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." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1291, 1297).

In general, Petitioner asserts that independent claim 1 of the '644 patent provides no inventive concept because independent claim 1 "fail[s] even to incorporate any generic computing devices." Pet. 18. Petitioner further asserts that, beyond the abstract idea, independent claim 1 "does nothing more than (i) allocate conventional, manual activities performed during traditional eye examinations amongst three different individuals; and (ii) indicate that examination information is passed between these individuals." Pet. 22–23. Petitioner further asserts that the problem the '644 patent addresses is not a computer technology problem, but rather a business problem, to which the '644 patent attempts to provide a business solution using the Internet in its normal and routine capacity. Pet. 22.

At this point in the proceeding, and on this record, we are persuaded by Petitioner that the additional elements of independent claim 1 do not "transform the nature of the claim" into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quoting *Mayo*, 566 U.S. at 78–79). The additional

elements must be more than "well-understood, routine, conventional activity." *Id.* at 1298. Petitioner has shown that independent claim 1 of the '644 patent is more likely than not unpatentable under 35 U.S.C. § 101.

4. Dependent claims 2–11

Relying upon its assertions made with respect to independent claim 1, Petitioner further asserts that the dependent claims "relate to other types of manual/mental activities, extra-solution activities, and/or well-understood, routine, conventional steps." Pet. 17. More particularly, Petitioner argues that

claims 3 and 6–11 merely describe steps for "reviewing" data collected during the examination, "instructing" a patient to try on contract lenses, "issuing" and "printing" prescriptions, and "collecting" and "transmitting" images of the patient's eye. Other dependent claims merely add routine extra-solution activities which simply: (i) specify locations of the individuals performing the examinations (claim 2); (ii) specify types of tests that are provided during the examination (claims 4 and 5); and (iii) recite the use of a well-known optical device (phoropter) and conventional videoconferencing functionality during the examination (claims 3 and 7).

Pet. 17–18.

On this record, we are persuaded Petitioner has satisfied its burden to show that the dependent claims are more likely than not directed to patent ineligible subject matter. We are persuaded by Petitioner that most of the dependent claims recite or require no additional computer technology other than "[t]he mere recitation of a 'remotely-controlled phoropter' and 'videoconferencing' in claims 3." Pet. 19. Here, Petitioner asserts that "phoropters and videoconferencing capabilities were well-known and have been in use for decades." *Id.* (citing Ex. 1006 ¶¶ 44–47; Ex. 1001, 4:9–27).

5. Conclusion

Accordingly, at this stage of the proceeding, we are persuaded that it is more likely than not that Petitioner would prevail in showing that claims 1-11 are unpatentable under § 101.

B. 35 U.S.C. § 112(B) – INDEFINITENESS – GROUND 2

Petitioner contends that claims 2–20 are indefinite under 35 U.S.C. § 112(b). Pet. 23–29 (citing Exs. 1001, 1006).

1. Relevant Law

In any patent, "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention." 35 U.S.C. § 112(b) (2013). "A decision on whether a claim is indefinite . . . requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification." MPEP § 2173.02. "The claims, when read in light of the specification and the prosecution history, must provide objective boundaries for those of skill in the art." *Interval Licensing, LLC v. AOL, Inc.,* 766 F.3d 1364, 1371 (Fed. Cir. 2014).

2. Claims 12–20 – "diagnostic center"

Petitioner argues that claims 12–20 are indefinite "because the meaning of the limitation: 'a diagnostic center . . . configured to: . . . review the patient examination data pertaining to the at least one test administered using the ophthalmic equipment' is unclear and vague." Pet. 24–26. More particularly, Petitioner argues that "only a single paragraph in the [S]pecification even mentions the term 'diagnostic center' and this passage

in no way describes any corresponding structure or functions performed by the diagnostic center." Pet. 25 (citing Spec. 17:34–50).

On this record, we are not persuaded by Petitioner's argument at least because the argument inaccurately paraphrases the language of independent claim 12. Independent claim 12 does not simply recite that the "diagnostic center" is "configured to: . . . review the patient examination data." Instead, claim 12 recites "a diagnostic center including ophthalmic equipment comprising a set of instruments that are utilized in administering eye examinations and being coupled to an equipment controller that is configured to receive instructions for controlling the ophthalmic equipment, wherein the diagnostic center is configured to: . . . review the patient examination data" Ex. 1001, 40:33–38, 41:3–5.

Here, we find the language of claim 12 conveys to a person of ordinary skill in the art that it is the "diagnostic center including ophthalmic equipment comprising a set of instruments that are utilized in administering eye examinations and being coupled to an equipment controller" that is configured to perform the function of "review[ing] the patient examination data pertaining to the at least one test administered using the ophthalmic equipment." And, consistent with this understanding, the '644 patent describes that after the doctor reviews the patient's history and exam information, a "prescription, along with any special instructions and/or referral information is sent to the central server (exam site and remote technician connections) **1200**, which is then passed on to the exam site **1100**" for viewing or printing. Ex. 1001, 11:41–45, 53–56, Fig. 1L, 1408. The '644 patent identifies that exam site 1100 includes "a tablet PC or other medium" that enables information 1105 to "be sent to the central server

(exam site and remote technician connection) **1200**." *Id.* at 9:28–31; *cf. id.* at 17:52–58, 19:35–45.

On the current record, we are not persuaded that the "diagnostic center," as it appears in independent claim 12, renders the claim indefinite.

3. Claims 2–20 – "*different locations*"

Claims 2 and 12 recite "wherein the eyecare doctor, the remote technician and the [local technicians/patient] are in *different locations*." Ex. 1001, 39:57–59, 41:6–7 (emphasis added). Petitioner asserts, "it is unclear whether the eyecare doctor, the remote technician and the patient/local technician are required to be located in different geographic areas, different buildings, different rooms, or even within the same room, but in different locations within the room or using different devices." Pet. 27. Petitioner further argues that "because the specification of the '644 patent does not resolve the ambiguities associated with the meaning of this claim limitation (*see supra* at 9–11), it is impossible for a POSITA to reasonably determine the scope and meaning of this claim limitation." Pet. 27 (citing Ex. 1006 ¶¶ 64–69).

On the current record, we disagree with Petitioner that any lack of explanation in the '644 patent's disclosure with regard to details of what constitutes a "different location" creates an issue of indefiniteness with respect to the metes and bounds of the claims. Instead, we find that the claim language at issue would have been sufficiently clear, to a person of ordinary skill in the art, that an "individual" at a "different location" would

be separated by some distance, as set forth in the '644 patent.¹² See

Ex. 1001, 4:15–15. We equate any lack of detail here as related to breadth, and not indefiniteness. *In re Miller*, 441 F.2d 689, 693 (CCPA 1971).

4. Claims 12–20 – antecedent basis

Petitioner asserts that "[t]he recitations of 'the eyecare doctor' and 'the remote technician' in claim 12 lack clear antecedent bases and, thus, render the claim indefinite." Pet. 28. More particularly, Petitioner asserts that

claim 12 initially recites that "availability data [is analyzed]" "to identify *at least one remote technician*" and "to identify *at least one eyecare doctor*." Claim 12 then recites that the diagnostic center is configured to "transmit a second request over a network to a *select remote technician*" and "transmit a fourth request over the network to *a select eyecare doctor*." In turn, claim 12 concludes with a wherein clause stating that "the eyecare doctor," the remote technician and the patient are in different locations."

Pet. 28.

Failure to provide explicit antecedent basis, however, does not always render a claim indefinite. For example, the failure to provide explicit antecedent basis does not necessarily render a claim indefinite if the context

¹² We note that the '644 patent identifies that "the present invention is designed to comply with the recommendations of the AOA [American Optometric Association] with respect to optimal telemedicine requirement-live interactive eye and vision telehealth services." Ex. 1001, 4:9–12. The ordinary and customary meaning of the term "telemedicine" is generally understood to mean "the diagnosis and treatment of patients in remote areas using medical information, as x-rays or television pictures, transmitted over long distances, especially by satellite." *See* Random House Unabridged Dictionary, <u>https://www.dictionary.com/browse/telemedicine</u> (last visited April 17, 2019).

provides reasonable certainty. *Energizer Holdings, Inc. v. Int'l Trade Com'n*, 435 F.3d 1366, 1370–71 (Fed. Cir. 2006) (finding implied antecedent basis for "said zinc anode" and characterizing the issue as one of what persons of ordinary skill would have understood when read in light of the specification). Here, independent claim 12 provides a context for the recited "eyecare doctor" and "remote technician" making it understandable that "the eyecare doctor" refers to the "select[ed] eyecare doctor," i.e., the eyecare doctor selected from the "subset of eyecare doctors," and "the remote technician" refers to the "select[ed] remote technician," i.e., the remote technician selected from the "subset of remote technician," i.e., the remote technician selected from the "subset of remote technicians," as set forth by independent claim 12. On the current record, we are not persuaded that a lack of antecedent basis for the recitations "the eyecare doctor" and "the remote technician" refers claims 12–20 indefinite.

5. Claims 4, 5, 13, and 14 – "normal visual acuity test"

Claim 4 recites "wherein the refraction tests comprise a normal visual acuity test and a subjective distance vision refraction test." Ex. 1001, 39:65–67. Claim 13 recites a similar limitation, which also includes "a normal visual acuity test." *Id.* at 41:8–11.

Petitioner asserts that the term "*normal* visual acuity test," as recited by dependent claims 4 and 13, "is vague and subjective because a POSITA would not understand what is meant by a 'normal' visual acuity test, much less what tests fall within this term." Pet. 29 (citing Ex. 1006 ¶¶ 76–82).

On the current record, we disagree with Petitioner that the term "normal visual acuity test" renders claim 4, 5, 13, and 14 indefinite. Here, the '644 patent describes the "normal visual acuity test" as one of the eye examination operations performed. *See, e.g.*, Ex. 1001, 25:59–29:20. More

particularly, the '644 patent discloses that during the "normal visual acuity test,"

[t]he remote technician will check the patient's visual acuity for each eye and then for both eyes together under the following conditions:

> With no correction for the right and left eye With no correction for both eyes together With their previous prescription for the right and left eye With their previous prescription for both eyes together[.]

Ex. 1001, 26:59–65. In our view, the term "normal visual acuity test" would have been sufficiently clear, to a person of ordinary skill in the art, in light of the steps described in the '644 patent. At trial, Petitioner will have an opportunity to address these concerns with this ground, should it so desire.

6. Conclusion

Accordingly, at this stage of the proceeding, we determine that the Petition does not demonstrate sufficiently that it is more likely than not that Petitioner would prevail in showing that claims 2–20 are unpatentable on this ground.

C. 35 U.S.C. § 112(A) - ENABLEMENT - GROUND 3

Petitioner contends that claims 12–20 are unpatentable under 35 U.S.C. § 112(a) for lack of enablement. Pet. 29–31 (citing Exs. 1001, 1006).

1. Relevant Law

"The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." *United States v. Telectronics, Inc.*, 857 F.2d 778, 785 (Fed. Cir. 1988). "[A] patent specification complies with the statute even if a 'reasonable' amount of routine experimentation is required in order to practice a claimed invention." *Enzo Biochem, Inc. v. Calgene, Inc.*, 188 F.3d 1362, 1371 (Fed. Cir. 1999). Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). These factors, referred to as the *Wands* factors, include:

(1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breath of the claims.

Wands, 858 F.2d at 737.

2. Analysis

Petitioner argues that that '644 patent fails to enable "a diagnostic center . . . configured to: . . . review the patient examination data pertaining to the at least one test administered using the ophthalmic equipment," as recited by independent claim 12. Pet. 29–30 (citing Ex. 1006 ¶¶ 57–63). More particularly, Petitioner asserts that

not a single passage in the '644 patent discusses anything with respect to the diagnostic center (or the exam unit) being configured to review patient examination data associated with tests administered using the ophthalmic equipment. The specification provides no guidance to a POSITA as to how a diagnostic center itself (i.e., a room or office) could be configured to review this data (i.e., rather than a human being).

Pet. 30 (citing Ex. 1006 ¶¶ 57–63).

At the outset, we are not persuaded by Petitioner's argument at least because the argument inaccurately paraphrases the language of independent claim 12. We also cannot agree with Petitioner's assertion that one of ordinary skill in the art would understand the "diagnostic center" to be simply "a room or office." Pet. 30. Instead, the '644 patent describes that after the doctor reviews the patient's history and exam information, a "prescription, along with any special instructions and/or referral information is sent to the central server (exam site and remote technician connections) **1200**, which is then passed on to the exam site **1100**" for viewing or printing. *See* Ex. 1001, 11:41–45, 53–56, Fig. 1L, 1408. The '644 patent identifies that exam site 1100 includes "a tablet PC or other medium" that enables information 1105 to "be sent to the central server (exam site and remote technician 53–56, Fig. 1L, 1408. The '644 patent identifies that exam site 1100 includes "a tablet PC or other medium" that enables information 1105 to "be sent to the central server (exam site and remote technician connection) **1200**." *Id.* at 9:28–31; *cf. id.* at 17:52–58, 19:35–45.

On the current record, we are not persuaded that the '644 patent does not enable a POSITA to make and use the full scope of the claimed invention without undue experimentation. At trial, Petitioner will have an opportunity to address these concerns with this ground, should it so desire.

3. Conclusion

Accordingly, at this stage of the proceeding, we determine that the Petition does not demonstrate sufficiently that it is more likely than not that Petitioner would prevail in showing that claims 12–20 are unpatentable for lack of an enabling disclosure.

D. ANTICIPATION BY BY SERIANI – GROUND 4

Petitioner asserts that claims 1–7, 10–14, and 17–2 are anticipated by Seriani. Pet. 31–73 (citing Exs. 1001, 1003, 1006).

1. Overview of Seriani

Seriani is titled "SYSTEMS AND METHODS FOR ENABLING CUSTOMERS TO OBTAIN VISION AND EYE HEALTH

EXAMINATIONS." Ex. 1003, (54). Seriani is directed to a "customer diagnostic center" which "provides data pertaining to the customer and the tests to a remote practitioner via a network for review and evaluation and receives an eye health report from the remote practitioner to be provided to the customer." *Id.* at 1:24–29. More particularly, Seriani discloses its:

customer diagnostic center includes a user interface for receiving input from, and providing information to, the customer. The customer diagnostic center also includes ophthalmic equipment for administering tests to the customer and an equipment controller configured to control the operation of the ophthalmic equipment. Customer examination data is received from the customer diagnostic center over a computer network at a diagnostic center server. The diagnostic center server permits the customer examination data to be accessed by an eye-care practitioner. The customer examination data is received at a practitioner device associated with the eye-care practitioner from the diagnostic center server. At least a portion of the customer examination data is displayed to the eye-care practitioner. Customer evaluation data pertaining to the eve-care practitioner's review and evaluation of the customer examination data is generated. An eye health report based, at least in part, on the customer evaluation data is provided to the customer via the network.

Id. at 4:40–57. Seriani describes that customers receive vision examinations at a customer diagnostic center that includes the necessary "vision testing

equipment and instruments for administering a range of tests and procedures and collecting various data pertaining to the customers' eyes and vision." *Id.* at 7:21–27. Seriani further describes that its customer diagnostic center includes "on-site operator interface **170**, which may allow an operator, technician, examination assistant, or any other suitable individual, who is at the same location as the customer diagnostic center to control certain aspects of the customer diagnostic center." *Id.* at 20:56–61. Seriani discloses that its "customer diagnostic center interfaces with a remote practitioner (e.g., ophthalmologist, optometrist, or other suitable eye doctor or eye care professional) through a network." *Id.* at 7:27–31.

Seriani further discloses that "CDC server **20** may establish a real-time connection between customer diagnostic center **10** and a device associated with an offsite technician (e.g., an equipment operator or the remote practitioner's assistant, etc.) for monitoring and/or controlling the equipment and the administration of the tests." *Id.* at 12:56–62; *see also id.* at 33:11–

15. In some embodiments, Seriani discloses

where the customer diagnostic centers communicate with a remote practitioner and/or off-site technician, this data may be sent to these individuals along with (or instead of) customer data and/or customer examination data, such as to allow the remote practitioner to view the customers, view or hear responses from the customers, and/or to determine whether certain equipment was setup and operated appropriately and whether one were administered properly.

Id. at 23:60–24:1. Seriani describes that customer data along with "data associated with the eye health and vision tests and procedures administered to the customer is provided to the remote practitioner for analysis, diagnosis and/or confirmation." *Id.* at 7:31–35. Seriani also describes that the remote

practitioner transmits "an eye health report, optical prescription, recommendations and/or referrals based on the customer and testing data" to the customer. *Id.* at 7:35–39.

2. Independent claim 1 and dependent claims 2–7, 10, and 11

Petitioner asserts that claims 1–7, 10–14, and 17–20 are anticipated by Seriani. Pet. 31–73 (citing Exs. 1001, 1003, 1006). For example, independent claim 1 recites "[a] method comprising" Petitioner asserts that Seriani discloses "providing an eye testing and evaluation system used to administer eye examinations." Pet. 31 (citing Ex. 1003, 1:16–29, 6:62– 7:15, 4:36–57, 7:15–44, Figs. 6–10; Ex. 1006 ¶ 84).

Independent claim 1 additionally recites "assigning a patient to a local eyecare technician, wherein the patient and the local eyecare technician are located at a local diagnostic center." Petitioner asserts that Seriani describes that a customer/patient is assigned to an on-site, i.e., local "operator, technician, [or] examination assistant . . . who is at the same location as the customer diagnostic center." Pet. 31–32 (citing Ex. 1003, 1:53–60, 3:5–15, 7:16–44, 8:38–61, 9:10–52, 11:32–45, 20:56–21:15, 32:47–67, 44:9–29, 45:49–46:6; Ex. 1006 ¶¶ 85–88).

Independent claim 1 further recites "assigning, by the local eyecare technician, the patient to a remote eyecare technician, wherein the remote eyecare technician is located at a remote diagnostic center." Petitioner asserts that Seriani describes an offsite technician located remotely from the customer diagnostic center. Pet. 33–34 (citing Ex. 1003, 12:41–65, 13:38–61; 20:30–55; 10:36–53; 23:49–24:7; 33:1–16, 34:18–35:15; Ex. 1006 ¶¶ 94–95). Petitioner further asserts that Seriani "explains that the onsite operator interface allows the onsite technician to control and assist with

establishing connections with remote individuals (e.g., the remote practitioner and/or offsite technician), as well as transmitting data to devices associated with these individuals." Pet. 34–35 (citing Ex. 1003, 20:56–21:44, 12:41–65, 10:36–54, 23:49–24:7; Ex. 1006 ¶¶ 96–99).

Independent claim 1 also recites "collecting, by the local eyecare technician, medical history for the patient." Petitioner asserts that Seriani describes collecting "customer data' and/or 'customer examination data,' both of which can include medical history information for the customer (i.e., patient)." Pet. 36–37 (citing Ex. 1003, 7:16–44, 11:17–12:40, 26:22–45, 37:51–38:6, 39:9–29; Ex. 1006 ¶¶ 105–108).

Independent claim 1 additionally recites "administering, by the local eyecare technician, pre-refraction tests on the patient to produce pre-refraction results for the patient." Petitioner asserts that Seriani describes that its on-site technician may administer various tests to the patient to produce pre-refraction results. Pet. 37–38 (citing Ex. 1001, 19:66–20:4, 21:55–61; Ex. 1003, 1:46–52, 2:24–40, 5:11–46, 8:38–61, 11:17–45, 19:33–53, 20:56–21:15, 24:59–25:67, 28:21–38, 29:7–20, 31:31–33:16, 37:16-30, 41:65–42:24, 43:30–60, 44:9–29, Figs. 4, 5; Ex. 1006 ¶¶ 109–114).

Independent claim 1 further recites "transmitting the medical history for the patient and the pre-refraction results for the patient to the remote eyecare technician." Petitioner asserts that Seriani describes transmitting the patient's medical history along with any collected test results "the remote eyecare technician (e.g., an offsite technician and/or remote practitioner)." Pet. 39 (citing Ex. 1003, 11:17–45, 13:38–61, 23:49–24:7, 41:65–42:24, 42:24–39; Ex. 1006 ¶¶ 115–116).

Independent claim 1 still further recites "administering, by the remote eyecare technician, refraction tests on the patient to produce refraction results for the patient." Petitioner asserts that Seriani describes that its system allows the remote practitioner to monitor and control one or more aspects of the vision examinations provided at the customer diagnostic center. Pet. 40–41 (citing Ex. 1003, 11:17–45, 12:41–65, 14:63–15:12, 20:1–55, 24:31–27:53, 32:47–33:16, 41:65–42:24, 43:5–44:57, Figs. 4, 7, 8; Ex. 1006 ¶¶ 117–120).

Independent claim 1 last recites "transmitting to an eyecare doctor the medical history for the patient, the pre-refraction results for the patient[,] and the refraction results for the patient." Petitioner asserts that Seriani describes that customer data along with "data associated with the eye health and vision tests and procedures administered to the customer is provided to the remote practitioner for analysis, diagnosis and/or confirmation." Pet. 41–44 (citing Ex. 1003, 7:16–44, 10:36–53, 10:65–11:45, 12:12–65, 13:38–61, 15:34–52, 16:44–17:3, 32:5–11, 21:56–22:18, 23:49–24:7, 33:1–16, 33:17–33, 43:61–44:8, 44:30–57, 46:7–21; Ex. 1006 ¶¶ 121–127).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Seriani anticipates independent claim 1.

As discussed below, for dependent claims 2–7, 10, and 11, Petitioner performs a similar mapping of the additional claim limitations of these claims to Seriani. Pet. 44–56.

Claim 2 recites that "the eyecare doctor, the remote technician and the local technicians are in different locations." Ex. 1001, 39:57–59. To address this limitation, Petitioner first asserts Seriani discloses that its on-site

operators are located at the customer diagnostic centers to "to facilitate and assist customers with one or more aspects of the vision examinations, eyehealth examinations, and/or other services." Pet. 44–45 (citing Ex. 1003, 7:16–44, 8:38–61, 9:30–52, 20:56–21:15, 32:47–67, 44:9–29, 45:49–46:6; Ex. 1006 ¶131).

Petitioner next asserts that Seriani discloses that "both the eyecare doctor (e.g., a remote practitioner) and the remote technician (e.g., an offsite technician or second remote practitioner) are located remotely with respect to the onsite technician and patient at the customer diagnostic center." Pet. 45–46 (citing Ex. 1003, 8:38–9:9, 10:36–11:25, 12:41–13:61, 13:38–61, 20:30-23:34, 23:49-24:7, 33:1-33, 34:18-35:14, 42:24-39, Fig. 2; Ex. 1006 ¶ 132–136). More particularly, Petitioner asserts that Seriani discloses that "the remote practitioner is situated at 'a location that is located remotely from the customer diagnostic center where the one or more tests are administered to the customer" Pet. 45-46 (citing Ex. 1003, 33:17-33, 42:24–39) and "the offsite technician is situated remotely from the onsite technician and patient, such as, located at a 'remote call center.'" Pet. 46 (citing Ex. 1003, 33:1–16 stating, "some or all of the assistance provided by, and functionality associated with, the on-site operators may be provided by one or more remote operators (e.g., a technician located at a remote call center or an assistant associated with a remote practitioner).").

Petitioner further asserts that Seriani discloses "that the 'eyecare doctor' (e.g., a remote practitioner) and the 'remote technician' (e.g., an offsite technician or a second remote practitioner) can also be in physically separate locations." Pet. 46–47 (citing 12:41–65, 23:49–24:7, 20:30–55); *see id.* at 47 (citing Ex. 1003, 13:38-61 stating "in certain embodiments,

customer diagnostic center **10** may establish a real-time connection with remote practitioner device **30** and/or a device associated with an off-site technician, and may manage the communication of data to and from various other systems and devices, such as customer device **40** and/or optical lab server **90**.").

Claim 3 recites "wherein the process of administering, by the remote eyecare technician, refraction tests on the patient to produce refraction results for the patient involves the use of a remotely-controlled phoropter and videoconferencing." Ex. 1001, 39:60–64. Petitioner asserts that Seriani "discloses that a remote eyecare technician (e.g., offsite technician or remote practitioner) can administer refraction tests on a patient to produce refraction results (e.g., customer examination data that includes test results, updated refractive errors, optical prescriptions, etc.)." Pet. 49 (citing Ex. 1003, 3:62–4:11, 11:17–45, 23:49-24:7, 25:30–26:62, 41:65–42:24, 43:5–44:57, Figs. 7, 8); *see also* Pet. 49–51 (citing Ex. 1003, 11:17–45, 12:41–65; 18:11–40, 24:46–59, 25:15–30, 28:58–29:6, 34:18–35:14, 41:65–42:24, 43:5–29, 43:37–60, 44:58–45:16, Figs. 3–5; Ex. 1006 ¶¶ 143–147).

Claim 4 recites "wherein the refraction tests comprise a normal visual acuity test and a subjective distance vision refraction test." Ex. 1001, 39:65–67. Petitioner asserts that Seriani discloses administering a range of tests and procedures at the customer diagnostic center which may include both objective and subjective components. Pet. 51–52 (citing Ex. 1003, 2:17–45, 7:57–8:5, 10:65–11:16, 19:54–67, 24:31–27:53, 29:21–32:3, 36:40–65, 36:66–37:15; Ex. 1006 ¶¶ 148–153).

Claim 5 recites "wherein the refraction tests further comprise[] a subjective near vision refraction test." Ex. 1001, 40:1–2. Petitioner asserts

that Seriani discloses administering a range of tests and procedures "includ[ing] subjective refraction tests and a wide array of other tests associated with providing a comprehensive eye examination." Pet. 53 (citing Ex. 1003, 24:31–27:53, 29:21–32:3, 36:40–65, 36:66–37:15; Ex. 1006 ¶¶ 154–158).

Claim 6 recites "reviewing, by the eyecare doctor, the medical history for the patient, the pre-refraction results for the patient and the refraction results for the patient." Ex. 1001, 40:3–6. Petitioner asserts that Seriani discloses "that the remote practitioner may review the customer data and/or customer examination data to produce customer evaluation data (e.g., which may include prescriptions, diagnoses, recommendations and/or information related to the results of the eye examination)." Pet. 54 (citing Ex. 1003, 4:15–35, 11:17–67, 12:22–40, 15:34–52, 42:24–39; Ex. 1006 ¶¶ 159–161).

Claim 7 recites "wherein the process of reviewing, by the eyecare doctor, the medical history for the patient, the pre-refraction results for the patient and the refraction results for the patient involves the use of a remotely-controlled phoropter and videoconferencing by the eyecare doctor." Ex. 1001, 40:7–10. Petitioner asserts that Seriani "discloses that a remote practitioner (e.g., eyecare doctor) is able to control and use a remotely-controlled phoropter and utilize videoconferencing during administration of the eye examinations to patients." Pet. 55 (citing Ex. 1003, 12:41–65, 20:1–55, 24:46–25:30, 43:37–60; Ex. 1006 ¶¶162–163).

Claim 10 recites "issuing, by the eyecare doctor, an eye-related prescription for the patient." Ex. 1001, 40:25–27. Petitioner asserts that Seriani discloses that "remote practitioner can send the prescriptions and other customer evaluation data to the customer diagnostic center." Pet. 55

(citing Ex. 1003, 7:16–44, 10:65–11:16, 11:46–67; 17:25–45, 22:31–49; 26:22–62, 33:34–48, 34:37–57, 36:25–37:15, 38:29-47; Ex. 1006 ¶¶ 164–165).

Claim 11 recites "printing the eye-related prescription for the patient at the local diagnostic center." Ex. 1001, 40:28–30. Petitioner asserts that Seriani discloses that the "customer or onsite technician can 'print out some or all of the customer evaluation data (e.g., an optical prescription or referral) using one or more printers provided at the customer diagnostic center." Pet. 56 (citing Ex. 1003, 24:8–20, 26:46–62, 32:47–67, 38:29–47, 47:18–36; Ex. 1006 ¶ 166).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Seriani anticipates independent dependent claims 2–7, 10, and 11.

3. Independent claim 12 and dependent claims 13, 14, and 17–20

Petitioner performs a similar analysis for independent claim 12 (Pet. 56–69), which is substantially similar to independent claim 1, but also includes the limitation "wherein the eyecare doctor, the remote technician and the patient are in different locations." Ex. 1001, 41:6–7. With respect to this additional limitation, Petitioner asserts that Seriani discloses "wherein the eyecare doctor, the remote technician and the patient are in different locations and the patient are in different locations." Ex. 1001, 41:6–7. With respect to this additional limitation, Petitioner asserts that Seriani discloses "wherein the eyecare doctor, the remote technician and the patient are in different locations" for the same reasons discussed above as dependent claim 2. Pet. 69 (citing Pet. 44–48; Ex. 1006 ¶¶ 198–199).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Seriani anticipates independent claim 12.

As discussed below, for dependent claims 13, 14, and 17–20, Petitioner performs a similar mapping of the additional claim limitations of these claims to Seriani. Pet. 69–73.

Claim 13 recites "wherein the at least one test pertaining to the eye examination comprise[s] a pinhole visual acuity test, a normal visual acuity test, and a subjective distance vision refraction test." Ex. 1001, 41:8–11. Petitioner asserts that Seriani discloses administering a range of tests and procedures at the customer diagnostic center including a normal visual acuity test, subjective distance vision refraction test, and pinhole visual acuity test. Pet. 69–70 (citing Ex. 1003, 31:31–40; Ex. 1006 ¶¶ 200–201; Pet. 51–53).

Claim 14 recites "wherein the at least one test pertaining to the eye examination further comprises a subjective near vision refraction test." Ex. 1001, 41:12–14. Petitioner asserts that Seriani discloses this limitation for the same reasons as dependent claim 5. Pet. 70 (citing Pet. 52–53; Ex. 1006 \P 202).

Claim 17 recites the diagnostic center is configured to: "transmit an eye-related prescription from the eyecare doctor for the patient." Ex. 1001, 42:4–7. Petitioner asserts that Seriani discloses "[t]he eye-related prescription can be transmitted from the remote practitioner to the patient (e.g., with the customer evaluation data and/or eye health report)." Pet. 70–71 (citing Pet. 54–55; Ex. 1003, 7:35–39, 10:36–53, 11:46–12:40, 13:24–37, 18:24–40, 20:56–21:15, 22:31–49, 23:15–34, 26:22–62, 32:47–67, 36:25–39, 38:29–39:7; Ex. 1006 ¶ 203–204).

Claim 18 recites the diagnostic center is configured to: "print the eyerelated prescription for the patient at the diagnostic center." Ex. 1001, 42:8–

12. Petitioner asserts that Seriani discloses this limitation for the same reasons as dependent claim 11. Pet. 71 (citing Pet. 55; Ex. 1006 ¶ 205).

Claim 19 recites the diagnostic center is configured to: "administer access to the network for the patient, the remote technician and the eyecare doctor." Ex. 1001, 42:13–16. Petitioner asserts that Seriani discloses that Seriani discloses that its customer diagnostic center includes "a server (e.g., CDC servers, RPM servers, and/or other servers) that is integrated with, or connected to, the customer diagnostic center to facilitate administration of the remote eye examinations." Pet. 71–72 (citing Ex. 1003, 10:36–64, 12:1–65, 13:38–61, 15:53-18:54, 20:56–23:14, 26:46–62; 33:34–48, 38:48–39:8, 43:5–29, 44:58–45:16, 46:28–43, Fig. 3; Ex. 1006 ¶¶ 208–211; Pet. 60, 66, 67).

Claim 20 recites the diagnostic center is configured to: "store the patient examination data in an electronic medical records-based protocol." Ex. 1001, 42:17–20. Petitioner asserts that Seriani discloses that its customer diagnostic center can collect and generate customer examination data, which is stored on a "database server, such as one that is integrated with the customer diagnostic center." Pet. 72–73 (citing Ex. 1003, 9:53–10:64, 10:1–35, 11:17–45, 15:53–67, 18:11–40, 37:51–38:6, 39:9–29, 43:32–36; Ex. 1006 ¶¶ 212–218).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Seriani anticipates dependent claims 13, 14, and 17–20.

E. OBVIOUSNESS OVER SERIANI – GROUND 5

Petitioner asserts that claims 1–7, 10–14, and 17–20 are obvious over Seriani. Pet. 73–77 (citing Exs. 1003, 1006).

1. Independent claim 1

Petitioner asserts that Seriani discloses the subject matter of claims 1– 7, 10–14, and 17–20, as discussed above with respect to Ground 4. Pet. 73. However, to the extent Seriani does not explicitly disclose the limitation "assigning, by the local eyecare technician, the patient to a remote eyecare technician, wherein the remote eyecare technician is located at a remote diagnostic center," it would have been obvious based on Seriani's disclosure. Pet. 73–75 (citing Ex. 1006 ¶¶ 100–103).

Petitioner asserts that Seriani

discloses that an onsite technician can assign a remote practitioner to a patient (e.g., by transmitting a request to the remote practitioner). [Seriani] also clearly discloses that an offsite technician can be assigned to a patient to participate in administering an eye examination. *Supra* at 32–35. Thus, it would have been obvious to a POSITA that the offsite technician could also be assigned by the onsite technician in the same manner as the remote practitioner is assigned (e.g., by the onsite technician selecting and transmitting a request, or assisting with the selection and transmission of a request, to an offsite technician).

Pet. 74 (citing Ex. 1006 ¶¶ 100–104). Petitioner takes the position that "there are only a finite number of ways the offsite technician can be assigned to the patient (e.g., by the customer, server or onsite operator, or a combination thereof), and one obvious way to do so would be to allow the onsite technician to participate in making the assignment." Pet. 74–75 (citing Ex. 1006 ¶ 102). Petitioner concludes that "[a] POSITA would have been motivated to assign an offsite technician in this manner for a number of reasons, such as to allow the onsite technician to select a specific offsite technician based on the wishes of the customer, and/or a technician who previously examined or interacted with the customer." Pet. 75 (citing Ex. 1003, 5:54–60 16:61–17:3; 45:65–46:6, claims 1, 11, 13, 25; Ex. 1006 ¶ 103).

2. Independent claim 12 and dependent claim 2

Petitioner asserts that Seriani discloses the subject matter of claims 1– 7, 10–14, and 17–20, as discussed above with respect to Ground 4. Pet. 73. However, to the extent Seriani does not explicitly disclose the "different locations" feature, as required by claims 2 and 12, the argued feature would have been obvious based on Seriani's disclosure. Pet. 75–77 (citing Ex. 1006 ¶¶ 138–142).

Petitioner first asserts that Seriani describes that its eye testing and evaluation system includes varying levels of assistance "from on-site and/or remote individuals." Pet. 76 (citing Ex. 1003, 32:5–11). Petitioner argues that one of the major benefits provided by Seriani's system is "that remote individuals (e.g., the offsite technician and second remote practitioner) are able to provide customers situated at a customer diagnostic center with eye examinations services from virtually any locations that are different (e.g., geographically separate) from the customer diagnostic center." Pet. 76 (citing Ex. 1003, 3:62–4:11, 35:33–39). Petitioner further asserts that a POSITA would understand from Seriani's disclosure that "the offsite technicians and remote practitioners could be in different locations from each other" and Seriani provides the necessary architecture to support such a configuration. Pet. 76–77 (citing Ex. 1003, 12:1–40, 15:53–16:3, 17:46–

18:40, 33:34–48, 34:18–35:32, 38:48–39:8, 46:28–43; Ex. 1006 ¶¶ 138–

142). Petitioner concludes that

[a] POSITA would have been be motivated to configure the system in this manner for a number of reasons, such as in order to provide greater flexibility (e.g., to permit individuals to participate in the eye examinations at their convenience regardless of where they are located). Among other things, this would increase the number of individuals who can provide the eye examinations, increase the number of customers, and expand the hours of operation.

Pet. 77 (citing Ex. 1006 ¶ 141).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Petitioner would prevail with respect to claims 1–7, 10–14, and 17–20 being unpatentable over Seriani.

F. OBVIOUSNESS OVER GE SERIANI AND COX – GROUND 6

Petitioner asserts that claims 8, 9, 15, and 16 are obvious over Seriani and Cox. Pet. 77–82 (citing Exs. 1003, 1004, 1006).

1. Overview of Cox

Cox is titled "CUSTOMIZED VISION CORRECTION METHOD AND BUSINESS." Ex. 1004, (54). Cox's Abstract reads as follows:

[a] method and business architecture for providing vision correction to a patient involves obtaining wavefront aberration measurement information and, optionally, patient history data, ordering data, dispensing data, billing data, and other information, from the patient; transmitting the various data to respective appropriate platforms, e.g., transmitting the wavefront aberration information to a custom lens supply platform; producing a custom lens for the patient; and delivering a custom lens to the patient in a personalized manner. The method further involves fitting and measurement processes including in-situ lens shaping and custom manufacture of contact lenses, IOLs, inlays or onlays by laser ablation, lathing, casting/molding and machining. Business architectures according to the invention include segregating vision correction method steps into contractual, revenue generating business transactions.

Ex. 1005, (57).

2. Claims 8, 9, 15, and 16

Claim 8 recites "if the process of reviewing, by the eyecare doctor, the medical history for the patient, the pre-refraction results for the patient and the refraction results for the patient by the eyecare doctor involves contact lenses, instructing the local eyecare technician and the patient to try on trial contact lenses." Ex. 1001, 40:13–19. Claim 15 includes a substantially similar limitation. *Id.* at 41:15–19.

Petitioner asserts that Seriani discloses that the customer examination data reviewed by its remote practitioner can "involve data related to contact lenses." Pet. 78 (citing Ex. 1003, 36:25–29). Petitioner further asserts that Seriani's "customer diagnostic center can facilitate 'trying-on' of contact lenses both physically and virtually." Pet. 78 (citing Ex. 1003, 9:10–29, 46:44–56). However, to the extent Seriani "does not explicitly disclose that instructions are provided to the local eyecare technician and the patient 'to try on trial contact lenses' as recited in claims 8 and 15, such a feature would have been obvious." Pet. 79 (citing Ex. 1006 ¶¶ 219–227).

Petitioner first asserts that the argued feature would be obvious in light of Seriani's disclosure because "[i]nstructing patients to try on trial contacts was a routine part of eye examinations for customers who wear contact lenses." Pet. 79 (citing Ex. 1006 ¶ 223). Additionally, Petitioner asserts the argued feature would have been obvious based on the disclosure of Cox. Pet. 79. Petitioner asserts that Cox discloses that "trying on trial contact lenses in connection with eye examinations," and takes the position that "it would have been obvious to modify the eye examinations offered by the system in [Seriani] to incorporate 'try[ing] on trial contact lenses' as taught by [Cox]." Pet. 79 (citing Ex. 1004, 2:62–3:5, 6:61–64, 10:1–7). Petitioner concludes that the asserted combination "would have been nothing more than a mere design choice and/or trivial variation pertaining to the type of instructions that are output to the customer and local technician." Pet. 80 (citing Ex. 1006 ¶¶ 223–227).

Claim 9 recites "collecting, by the local eyecare technician, slit lamp images from the patient with the trial contact lenses in place; and transmitting the slit lamp images to the eyecare doctor." Ex. 1001, 40:20–24. Claim 15 includes a substantially similar limitation. *Id.* at 41:20–42–3.

Petitioner asserts that Seriani discloses that its system utilizes a biomicroscope that can be used to perform a "slit lamp biomicroscopy" and obtain images during the eye examination. Pet. 81 (citing Ex. 1003, 2:17–45, 5:47–6:4, 7:57–8:5, 8:38–61, 19:33–53, 27:55–28:38, 28:7–20, 29:50–30:2, Fig. 5; Ex. 1006 ¶¶ 228–230). However, to the extent Seriani "does not explicitly disclose that these slit lamp images are obtained 'with the trial contact lenses in place,' this feature would have been obvious in view of [Cox]." Pet. 82 (citing Ex. 1006 ¶ 231). Based on the disclosures of Seriani and Cox, Petitioner concludes that

[a] POSITA that the system in [Seriani] could collect or obtain the slit lamp images while the trial contact lenses were in place, as taught by [Cox]. Schuette Decl., ¶¶ 231–233. And in turn, these images would be transmitted to the remote practitioner along with the customer examination data, as taught by [Seriani]. Id., ¶232[.] For a POSITA, this would have amounted to nothing more than a trivial variation of the system in [Seriani]. Id., ¶232. A POSITA would have been motivated to do so for a number of reasons, including to better assess a patient's eyes during an examination (e.g., to assess the eye for certain diseases).

Pet. 82 (citing Ex. 1006 ¶ 233).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Petitioner would prevail with respect to claims 8, 9, 15, and 16 being unpatentable over Seriani and Cox.

G. OBVIOUSNESS OVER GE SERIANI AND KANGARLOO – GROUND 7

Petitioner asserts that claim 20 is obvious over Seriani and Kangarloo. Pet. 83–84 (citing Exs. 1003, 1005, 1006).

1. Overview of Kangarloo

Kangarloo is titled "METHODS AND APPARATUS FOR CONTEXT-SENSITIVE TELEMEDICINE." Ex. 1005 (54). Kangarloo's Abstract reads as follows:

[a] system for context-sensitive medical communication is described. Patient presentation data is obtained, the patient presentation data is mapped to biological system data, wherein the biological system data are obtained by a population-based comparison, and a relevance-driven summary is generated. Following the primary read, the study can be compressed and transmitted remotely, such as in teleconsultation described below. The imaging study can be provided by patient presentation mapping to medical nomenclature, and mapping the patient study to an appropriate normalized atlas which has been created by averaging and morphing as well as quantification and providing labels which have come from data mining of reports.

Ex. 1005, (57).

2. Claim 20

Claim 20 recites the diagnostic center is configured to: "store the patient examination data in an electronic medical records-based protocol."

Ex. 1001, 42:17–20. Petitioner asserts that Seriani discloses that its customer diagnostic center can collect and generate customer examination data, which is stored on a "database server, such as one that is integrated with the customer diagnostic center."

Peititioner asserts that Seriani discloses the argued limitation. Pet. 83 (citing Pet. 36, 37, 71, and 72). However, to the extent Seriani "fails to disclose that the customer examination data (i.e., patient examination data) is stored in an 'electronic medical records-based protocol," such a feature would have been obvious." Pet. 83 (citing Ex. 1006 ¶ 231).

Petitioner first asserts that "it was well known that many different medical records-based protocols existed and that medical records were routinely stored using such protocols to permit the records to be easily exchanged among individuals or organizations," and takes the position that it have been obvious to "a POSITA that medical records and other data included in the customer examination data of [Seriani] could be stored in accordance with an electronic medical records-based protocol." Pet. 83 (citing Ex. 1006 ¶¶ 234, 235). Additionally, Petitioner asserts the argued limitation would have been obvious based on the disclosure of Kangarloo. Pet. 83.

Petitioner asserts that Kangarloo discloses storing patient examination data using "the standard DICOM protocol and format." Pet. 83–84 (citing Ex. 1005 ¶¶ 4, 51, 58, 59, 98, 99, 125–133, 144, 150). Petitioner argues that it would be have been obvious for a POSITA to modify Seriani to use the standard DICOM protocol and format used in Kangarloo. Petitioner concludes that the asserted combination

would have amounted to nothing more than a routine design choice and/or applying known data storage techniques to a known element (e.g., patient data) to yield predictable results (e.g., storing data in an electronic medical records-based format that facilitates the exchange of the data). Schuette Decl., ¶ 237. A POSITA would have been motivated to do so for a number of reasons, including to allow the data to provided easily to various individuals (e.g., the customers) or organizations (e.g., other eyecare practitioners or optical labs), and to allow the patient's records to be organized, maintained, and updated in a uniform manner.

Pet. 84 (citing Ex. 1006 ¶ 238).

On the current record, at this stage of the proceeding, Petitioner demonstrates that it is more likely than not that Petitioner would prevail with respect to claim 20 being unpatentable over Seriani and Kangarloo.

IV. CONCLUSION

On April 24, 2018, the Supreme Court held that a final written decision under 35 U.S.C. § 318(a) must decide the patentability of all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1360 (2018). Although *SAS* addressed the statutory section for final written decisions in *inter partes* reviews, the corresponding section for post-grant reviews, 35 U.S.C. § 328(a), uses essentially identical language, so we interpret it the same way. *See Powerex Corp. v. Reliant Energy Servs., Inc.*, 551 U.S. 224, 232 (2007) (stating that "identical words and phrases within the same statute should normally be given the same meaning").

After considering the evidence and arguments presented in the Petition, we determine that the Petition demonstrates that it is more likely than not that Petitioner would prevail in showing that at least one of the challenged claims is unpatentable. Nothing in this decision should be

construed as a final finding or determination with respect to any issue or claim

V. ORDER

For the reasons given, it is:

ORDERED that pursuant to 35 U.S.C. § 324, a post grant review of the '644 patent is instituted as to claims 1–20 based on the unpatentability grounds set forth in the Petition; and

FURTHER ORDERED that a post grant review is commenced on the entry date of this Order, and pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

PETITIONER:

Joseph Richetti Joe.richetti@bryancave.com

Kevin Paganini <u>Kevin.paganini@bryancave.com</u>

PATENT OWNER:

Mark Koffsky mkoffsky@koffskyschwalb.com

Gary Serbin gserbin@koffskyschwalb.com