

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE LLC,  
LG ELECTRONICS, INC.  
Petitioner

v.

CONVERSANT WIRELESS LICENSING S.A.R.L.<sup>1</sup>  
Patent Owner

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Case IPR2015-01715  
Patent No. 7,072,667

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**PETITIONER'S NOTICE OF APPEAL**

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<sup>1</sup> The cover sheet of the Decision on Remand (Paper 30) does not reflect updates to the names of Petitioner and Patent Owner. (*See* Paper 25; Paper 26.) Petitioner identifies the parties by their correct names here, as also reflected in the Federal Circuit's Decision in this case. (*See* Paper 28.)

Director of the United States Patent and Trademark Office  
c/o Office of the General Counsel  
Madison Building East, 10B20  
600 Dulany Street  
Alexandria, VA 22314-5793

Notice is hereby given, pursuant to 37 C.F.R. § 90.2(a), that Petitioners Google LLC and LG Electronics, Inc. (“Petitioner”) appeal to the United States Court of Appeals for the Federal Circuit from the Decision on Remand entered on September 27, 2019 (Paper 30) (the “Decision on Remand”) by the United States Patent and Trademark Office, Patent Trial and Appeal Board (the “Board”), and from all underlying orders, decisions, rulings, and opinions. A copy of the Decision on Remand is attached.

In accordance with 37 C.F.R. § 90.2(a)(3)(ii), Petitioner indicates that the issues on appeal include, but are not limited to, the Board’s ruling that Petitioner has not demonstrated, by a preponderance of the evidence, that the claims of U.S. Patent No. 7,072,667 (“the ’667 patent”) are unpatentable over the prior art, and any findings or determinations supporting or related to that ruling including, without limitation, the Board’s construction and application of the claim language, the Board’s interpretation of the prior art, and the Board’s interpretation of expert evidence.

Simultaneous with this submission, a copy of this Notice of Appeal is being filed with the Board. In addition, the Notice of Appeal and the required fee are being filed electronically with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

Respectfully submitted this 27th day of November, 2019.

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**CERTIFICATE OF SERVICE**

The undersigned certifies that, in addition to being filed electronically through Patent Trial and Appeal Board End to End (PTAB E2E), the original version of this Notice of Appeal was filed by overnight express delivery on November 27, 2019 with the Director of the United States Patent and Trademark Office, at the following address:

Office of the General Counsel  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

The undersigned also certifies that a true and correct copy of this Notice of Appeal and the required fee were filed electronically via CM/ECF on November 27, 2019, with the Clerk of Court for the United States Court of Appeals for the Federal Circuit.

The undersigned also certifies that a true and correct copy of this Notice of Appeal was served on November 27, 2019, on counsel of record for Patent Owner by electronic mail (by agreement of the parties) at the following address:

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Date: November 27, 2019

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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GOOGLE, INC. and  
LG ELECTRONICS, INC.,  
Petitioner,

v.

CORE WIRELESS LICENSING S.A.R.L.,  
Patent Owner.

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Case IPR2015-01715  
Patent 7,072,667 B2

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Before LYNNE E. PETTIGREW, CHRISTA P. ZADO, and  
JESSICA C. KAISER, *Administrative Patent Judges*.

ZADO, *Administrative Patent Judge*.

DECISION ON REMAND  
*35 U.S.C. § 144 and 37 C.F.R. § 42.5(a)*

## I. BACKGROUND

### *A. Initial Proceedings Before the Board*

Google Inc. and LG Electronics, Inc. (collectively, “Petitioner”) filed a Petition for *inter partes* review of claims 1–15 (“challenged claims”) of U.S. Patent No. 7,072,667 B2 (Ex. 1001, “the ’667 patent”) (Paper 3, “Pet.”), and Core Wireless Licensing S.A.R.L. (“Patent Owner”) subsequently filed a Preliminary Response (Paper 7, “Prelim. Resp.”). On February 18, 2016, we instituted an *inter partes* review to determine whether the challenged claims of the ’667 patent are unpatentable on the following grounds: claims 1–3 and 8–14 under 35 U.S.C. § 102(b) as anticipated by Staack;<sup>1</sup> claims 5, 6, 7, and 15 under 35 U.S.C. § 103(a) as obvious over Staack and Reed;<sup>2</sup> and claim 4 under 35 U.S.C. § 103(a) as obvious over Staack and Johansson.<sup>3</sup> Paper 8, 20 (“Inst. Dec.”).

After institution, Patent Owner filed a Response (Paper 12, “PO Resp.” or “Response”), and Petitioner filed a Reply (Paper 15, “Reply”). An oral hearing was held on November 2, 2016. A transcript of the hearing is included in the record. Paper 20 (“Tr.”).

On February 13, 2017, we entered a Final Written Decision (Paper 21, “Final Dec.” or “Final Decision”) determining that Petitioner had not demonstrated, by a preponderance of the evidence, that claims 1–15 of the ’667 patent are unpatentable because Petitioner had not shown that Staack discloses the “without pre-registering” claim limitation. Final Dec. 8–13.

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<sup>1</sup> PCT Publication No. WO 00/36430 (Ex. 1003, “Staack”).

<sup>2</sup> U.S. Patent No. 6,275,707 B1 (Ex. 1004, “Reed”).

<sup>3</sup> U.S. Patent No. 6,442,391 B1 (Ex. 1005, “Johansson”).

The independent challenged claims—claims 1, 10, 12, and 13—each require, in pertinent part, performing various steps or an apparatus or circuitry operable to perform various steps, including sending a request for location finding information from a mobile station, *without pre-registering* the mobile station with a location finding service. *Id.* at 8.

Petitioner filed a Request for Rehearing (Paper 22, “Req. Reh’g”), arguing that the Final Decision “overlooked Petitioner’s primary argument” that the “without pre-registering” claim limitation is met by the fact that pre-registering is not expressly required in Staack (“negative limitation argument”). Req. Reh’g 1; *see also* Pet. 24. Petitioner argued that we instead only considered an alternative argument in the Petition, namely that to the extent Patent Owner argued that maintaining a list of entities permitted to receive location information is considered registering, Staack discloses that such features are optional (“contingent argument”). Req. Reh’g. 1; *see also* Pet. 25.

On June 16, 2017, we denied Petitioner’s request for rehearing (Paper 23, “Reh’g Dec.” or “Rehearing Decision”), explaining why we believed we had addressed Petitioner’s arguments, including Petitioner’s negative limitation argument. Paper 23, 3–4.

#### *B. Proceedings Before the Federal Circuit*

On August 17, 2017, Petitioner filed a Notice of Appeal to the United States Court of Appeals for the Federal Circuit for review of the Final Decision. *See* Paper 24. In its appeal brief, Petitioner argued that the Final Decision did not address the negative limitation argument. Appeal Brief, *Google LLC, LG Electronics, Inc. v. Conversant Wireless Licensing S.A.R.L.*, No. 2017-2456 (Fed. Cir. Jan. 12, 2018) (“Appeal Br.” or “Appeal



Brief”). Patent Owner responded that the Board did not overlook Petitioner’s argument, but rather “looked correctly to Google to prove, by a preponderance of the evidence, that a person of ordinary skill in the art would understand that Staack did not require the mobile station” to be pre-registered with a location-finding service. Appellee Response Brief, *Google LLC, LG Electronics, Inc. v. Conversant Wireless Licensing S.A.R.L.*, No. 2017-2456 (Fed. Cir. Feb. 20, 2018).

On November 20, 2018, the Federal Circuit vacated and remanded this case to the Board, stating:

[W]e vacate and remand the Board’s [final written] decision for the Board to consider Petitioner’s negative-limitation argument consistent with this opinion and the Board’s institution decision. On remand, the Board should also consider all arguments and evidence raised in the Patent Owner’s response and the Petitioner’s reply as to whether Staack satisfies the “without pre-registering” limitation.

Order on Mot. for Remand, *Google LLC, LG Electronics, Inc. v. Conversant Wireless Licensing S.A.R.L.*, No. 2017-2456, slip op. at 10 (Fed. Cir. Nov. 20, 2018) (“Remand Order”); *see also* Paper 28 (Federal Circuit order). The mandate issued on December 27, 2018. Paper 29.

### *C. Proceedings on Remand*

On January 23, 2019, a conference call was held with counsel for the parties and Judges Pettigrew, Zado, and Kaiser to discuss the procedures for remand in this proceeding. Petitioner requested five pages of additional briefing. Patent Owner indicated additional briefing was not necessary, but that it would request additional briefing if we were to grant Petitioner’s request. Under the circumstances presented here, as discussed in our order,

we determined additional briefing is not warranted, and we denied Petitioner's request. Paper 27.

Our order notes that the Board's Standard Operating Procedure 9 provides guidance regarding the procedure for handling cases remanded from the Federal Circuit. *See* PTAB SOP 9 ("Procedure for Decisions Remanded from the Federal Circuit for Further Proceedings"). Under SOP 9, "the panel shall consider procedures proposed by the parties," but "ultimately will decide the procedures to be followed on remand." *Id.* at 5 (App'x 2). SOP 9 further provides that "[t]he panel will consider the scope of the remand, as determined from the reasoning and instructions provided by the Federal Circuit, as well as 'the effect . . . on the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings.'" *Id.* at 6 (App'x 2) (quoting 35 U.S.C. §§ 316(b), 326(b)). With regard to additional briefing, SOP 9 states that it "will normally be limited to the specific issues raised by the remand," and "[i]n deciding whether to allow additional briefing by the parties, the panel will take into account whether the parties have had an adequate opportunity to address the issues raised by the remand." *Id.* (citing *Microsoft Corp. v. Proxyconn, Inc.*, Case IPR2012-00026 (Paper 77) (PTAB Sept. 1, 2015); *Dell Inc., v. Acceleron, LLC*, Case IPR2013-00440 (Paper 46) (PTAB May 26, 2016)); *see also id.* at 8 (App'x 2) (stating that the default procedure for remands due to inadequate explanation by the Board is not to permit additional briefing).

With this guidance in mind, we considered Petitioner's proposal, and determined that additional briefing is not warranted in this proceeding. The scope of the remand is limited to directing the Board to consider evidence

and argument in the Petition, Institution Decision, Patent Owner’s Response, and Petitioner’s Reply regarding Petitioner’s negative limitation argument. Remand Order, 9–10. The Federal Circuit’s decision, therefore, directs further consideration and explanation of that argument based on the current record developed during trial. The parties had sufficient opportunity to brief and submit their respective arguments and evidence regarding the negative limitation argument during trial.

For the reasons stated above, Petitioner’s request for additional briefing was denied. Neither party requested, nor did we discern a need for, submission of additional evidence or oral argument. Paper 27.

## II. DISCUSSION

### *A. Legal Principles*

An *inter partes* review may not be instituted unless “the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least one of the claims challenged in the petition.” 35 U.S.C. § 314(a). “In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). Moreover, it is incumbent upon the petitioner to identify, in the petition, “in writing and with particularity each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.” 35 U.S.C. § 312(a)(3); *see also Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1369 (2016) (“It is of the utmost importance that petitioners in the IPR proceedings adhere to

the requirement that the initial petition identify ‘with particularity’ the ‘evidence that supports the grounds for the challenge to each claim.’ 35 U.S.C. § 312(a)(3).”); *see also* 37 C.F.R. § 42.104(b) (requiring that a petition set forth the statutory grounds under 35 U.S.C. §§ 102 or 103 on which the challenged claim is based and the prior art relied upon for each ground, how the challenged claim is to be construed, and how the construed claim is unpatentable under the identified statutory ground).

Once an *inter partes* review is instituted, to prevail on its challenges “the petitioner shall have the burden of proving a proposition of unpatentability by a preponderance of the evidence.” 35 U.S.C. § 316(e). Although the burden of production may shift, the burden of persuasion on the issue of patentability remains with Petitioner always and never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

“[T]here is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial.” *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016). “[T]he Board is not bound by any findings made in its Institution Decision. At that point, the Board is considering the matter preliminarily without the benefit of a full record. The Board is free to change its view of the merits after further development of the record, and *should do so* if convinced its initial inclinations were wrong. To conclude otherwise would collapse these two very different analyses into one.” *Id.*; *see also id.* (rejecting the argument that “the Board should not change its views of the patent’s validity without clearly explaining why it had done so”).

As noted above, Petitioner asserts patentability challenges under both §§ 102 and 103. To establish anticipation under § 102, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). Prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Also, “it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826 (CCPA 1968). As the Federal Circuit recently explained, the dispositive question for anticipation is whether one skilled in the art would reasonably understand or infer from a prior art reference that every claim element is disclosed in that reference. *Eli Lilly & Co. v. Los Angeles Biomedical Research Inst.*, 849 F.3d 1073, 1074–1075 (Fed. Cir. 2017).

A claim is unpatentable for obviousness under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are “such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective indicia of non-obviousness, i.e., secondary considerations. *Graham v. John Deere Co.*,

383 U.S. 1, 17–18 (1966). Furthermore, a petitioner does not satisfy its burden of proving obviousness by employing “mere conclusory statements.” *In re Magnum Oil Tools Int’l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

### *B. Analysis*

In our analysis below, because it is incumbent upon Petitioner to identify, in the Petition, “with particularity each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim,” 35 U.S.C. § 312(a)(3), we first provide an overview of the arguments presented in the Petition. In particular, Petitioner argues that: (1) the claim limitation at issue is a negative limitation, and Staack’s silence as to pre-registration constitutes disclosure of that limitation; and (2) to the extent Patent Owner proposes a particular feature in Staack (“Staack check feature”) is considered pre-registering with a location finding service, this feature is optional—hence, Staack discloses both pre-registering (when the feature is used) and without pre-registering (when the feature is not used). Pet. 24–26; *see also infra*, Sec. II.B.1.

Next, in Section II.B.2, we address the showing necessary to demonstrate disclosure or teaching of a negative limitation. In particular, although a negative limitation may be adequately described by a reference that does not otherwise require the presence of the limitation, silence is not sufficient *per se* to show the reference discloses or teaches the negative limitation. Rather, Petitioner must show a person of ordinary skill in the art would have understood from the reference that the element recited in the negative limitation is not required. *See infra*, Sec. II.B.2.

Finally, we consider whether Petitioner has presented any evidence or argument, in addition to Staack's silence, to demonstrate that a skilled artisan would have understood Staack to disclose or teach the negative limitation. *See infra*, Sec. II.B.3. We also consider Petitioner's evidence and arguments regarding the Staack check feature and Patent Owner's argument that this feature is considered pre-registering, in addition to other arguments made by Patent Owner, and Petitioner's responses to Patent Owner's arguments. *See id.*

The argument and evidence of record support Petitioner's contention that Staack is silent regarding pre-registering the mobile station with a location finding service. However, having considered all of the arguments and evidence of record as discussed in detail below, we determine that Petitioner has not adequately shown that a person of ordinary skill in the art would have understood Staack's silence to mean that Staack operates without such pre-registering. Thus, we determine Petitioner has not met its burden to prove unpatentability by a preponderance of the evidence.

*1. Petitioner's Argument*

As noted above, each of the independent challenged claims—claims 1, 10, 12, and 13—requires, in pertinent part, performing various steps, or an apparatus or circuitry operable to perform various steps, including sending a request for location finding information from a mobile station, *without pre-registering* the mobile station with a location finding service.

Also noted above, the Petition presents two arguments to show Staack discloses the “without pre-registering” limitation: (1) the limitation is a negative limitation that is satisfied by silence in the prior art (“negative limitation argument”); and (2) to the extent Patent Owner proposes that the

Staack check feature, involving maintaining a list of mobile stations permitted to receive location information, is considered to be pre-registration for a location finding service, this feature is optional, and therefore Staack's processes can be performed both with and without pre-registering ("contingent argument"). Pet. 24–26.

With regard to the negative limitation argument, the Petition asserts:

*Staack* discloses that its disclosed processes, such as those described above, are performed without pre-registering the mobile station for the location finding service. Indeed, *Staack* nowhere discloses that pre-registration is required to access the location-based service.

Pet. 24 (citing Ex. 1008 ¶ 31; citing and quoting *CLIO USA, Inc. v. The Procter and Gamble Co.*, Case IPR2013-00448, slip op. at 3 (Paper 15) (Feb. 4, 2014) and *Palo Alto Networks, Inc. v. Juniper Networks, Inc.*, Case IPR2013-00466, slip op. at 18 (Paper 17) (Jan. 28, 2014)). In support of this argument, Petitioner cites to the declaration of Dr. Bartone, who states only that Staack discloses the "without pre-registering" limitation because Staack does not disclose that pre-registration is required:

*Staack* discloses its processes, such as those described above, are performed without pre-registering the mobile station for the location finding service. For example, *Staack* does not disclose anywhere that pre-registration is required to access the location-based services disclosed in *Staack*.

Ex. 1008 ¶ 31. This is the only argument and evidence Petitioner presented at the petition stage with regard to the negative limitation argument.<sup>4</sup>

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<sup>4</sup> Discussed below, the Petition is ambiguous as to whether the optional Staack check feature, relied on to support the contingent argument, is also relied on to support the negative limitation argument. Therefore, we also consider this optional feature in our discussion of the negative limitation argument below.



Accordingly, Petitioner and Dr. Bartone rely solely on the contention that Staack does not expressly disclose pre-registration.

The Petition does not explain why the lack of disclosure of a feature is sufficient to satisfy the “without pre-registering” limitation. Rather, Petitioner quotes the two non-precedential Board decisions cited above, *CLIO* and *Palo Alto Networks*, without explaining the significance of, or applying, the quoted language to the facts presented here. Pet. 24. Petitioner quotes *CLIO*, which states that “[n]egative limitations may be satisfied by silence in the prior art.” *Id.* (quoting *CLIO*, slip op. at 3). Petitioner also quotes *Palo Alto Networks*, which states “a negative limitation requiring the absence of an element may be adequately described by a cited prior art reference if that reference does not otherwise require the presence of the element recited in the negative limitation.” *Id.* (quoting *Palo Alto Networks, Inc.*, slip op. at 18). Based on Petitioner’s statement that Staack does not expressly disclose pre-registration, and the above quotes from *CLIO* and *Palo Alto Networks*, Petitioner’s argument is that Staack’s silence regarding pre-registration and/or absence of pre-registration *per se* satisfies the “without pre-registering” limitation.

Petitioner’s second argument relates to an optional feature in Staack involving a privacy check (i.e., the Staack check feature) in which a home location register (“HLR”) checks to see whether mobile station MS1 is permitted to receive location information about mobile station MS2. Pet. 25 (citing Ex. 1003, 14:16–23). This argument in the Petition is contingent on a potential argument by Patent Owner—that the Staack check feature is considered pre-registering with a location finding service. *Id.* Petitioner argues that because Staack discloses this feature is optional, it is not

required. *Id.* (citing *Upsher-Smith Labs, Inc. v. Pamlab, LLC*, 412 F.3d 1319, 1322 (Fed. Cir. 2005) for the proposition that a prior art reference that discloses optional inclusion of a feature in a composition teaches compositions that both do and do not contain the feature). Petitioner argues, therefore, that Staack would have informed one of ordinary skill in the art that the processes disclosed therein could be performed without pre-registering. *Id.*

Although Petitioner argued in the Appeal Brief that the negative limitation argument and contingent argument are two separate arguments, Appeal Br. 18, the Petition is ambiguous as to whether the optional Staack check feature is presented to support only Petitioner's contingent argument or also is presented to support the negative limitation argument, *see* Pet. 24–26. The ambiguity arises because the Petition's entire analysis of the “without pre-registering” limitation appears in a single paragraph, and it is unclear in context whether the assertion regarding the Staack check feature is intended to support one or both arguments. Pet. 24–26. Because of this ambiguity, in the Final Decision, as with this Decision, we consider the Staack check feature not only in our evaluation of the contingent argument, but also in our evaluation of the negative limitation argument.

For the reasons discussed below, upon review of the entire record in this proceeding, Petitioner's argument and evidence are insufficient to show Staack discloses the “without pre-registering” limitation, and thus Petitioner has not demonstrated, by a preponderance of the evidence, that the challenged claims are unpatentable.

2. *Standard for showing a reference discloses a negative limitation*

The standard cited by Petitioner to support the negative limitation

argument—i.e., silence and/or absence of an element in the prior art is sufficient *per se* to satisfy a negative limitation—is not the standard set forth in the Federal Circuit decisions upon which the Board relied in *CLIO*,<sup>5</sup> nor is it the standard upon which we relied in the Institution Decision and Final Decision. For the proposition that a negative limitation may be satisfied by silence in the prior art, *CLIO* relies on *Süd-Chemie, Inc. v. Multisorb Technologies, Inc.* 554 F.3d 1001, 1004–05 (Fed. Cir. 2009). *CLIO*, slip op. at 3. *CLIO* relies on *Upsher-Smith Labs, Inc. v. PamLab, LLC*, 412 F.3d 1319, 1322 (Fed. Cir. 2005) for the proposition that a “negative limitation” defines the claimed subject matter by what it is not, rather than by what it is. *CLIO*, slip op. at 3.

Neither of these Federal Circuit cases stands for the proposition that silence and/or absence of an element in the prior art is sufficient *per se* to satisfy a negative limitation. *Süd-Chemie* specifically addresses unpatentability under § 103. The issue in that case was whether the prior art, Komatsu, taught the use of desiccant containers comprising packaging material further comprising *uncoated* microporous and laminated films. *Süd-Chemie*, 554 F.3d at 1004. The term “uncoated” in the claims was construed to mean “uncoated with an adhesive.” *Id.* The Federal Circuit noted that Komatsu repeatedly referred to the process of adhering microporous films and laminated sheets together by heat sealing, “with no indication that the process contemplates the use of adhesive coatings on the films.” *Id.* In upholding the district court’s determination that Komatsu

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<sup>5</sup> The cited portion of *Palo Alto Networks* upon which Petitioner relies does not cite any authoritative case law. Pet. 24 (citing *Palo Alto Networks*, slip op. at 18).

taught uncoated films, the Federal Circuit stated that “Komatsu plainly teaches that containers can be made of films that are heat sealed without the use of adhesives, and thus without coatings.” *Id.* at 1004–5. The Federal Circuit noted further that the patentee had not offered evidence that would counter this understanding. *Id.* at 1005. Moreover, Komatsu’s detailed description of how the microporous film was prepared described heat sealing to adhere the film to the sheets, and did not suggest adhesive coating to adhere the film to the sheets. *Id.* For these reasons, the Federal Circuit concluded that the district court did not err in characterizing Komatsu as *teaching* the use of uncoated films. *Id.* Therefore, contrary to Petitioner’s suggestion, *Süd-Chemie* does not hold that silence in the prior art is sufficient *per se* to satisfy a negative limitation. Rather, the district court determined the prior art *taught* the limitation at issue because it expressly disclosed the type of adhesion, i.e., heat sealing, used to adhere a microporous film and laminate sheet together. *Id.* Based on this express disclosure of a method of adhesion, the district court interpreted Komatsu as not being limited to disclosing only films coated with adhesives for adhesion. *Id.*

The negative limitation discussion in *Upsher-Smith* specifically addresses unpatentability under § 102. The patents at issue were directed to vitamin supplements, and claimed compositions that expressly excluded antioxidants based on the discovery that antioxidants destroy vitamin B<sub>12</sub> and folate. *Upsher-Smith*, 412 F.3d at 1321 (claiming a composition that includes folic acid and vitamin B<sub>12</sub>, but is “essentially free of anti[ox]idants”). The patentee conceded that the prior art disclosed every element of the asserted claims except the limitation “essentially free of

antioxidants.” *Id.* at 1322. However, it was undisputed that the prior art disclosed that the antioxidants were *optionally* included in the prior art vitamin supplements. *Id.* The Federal Circuit held that the district court did not err in determining that the *optional* inclusion of antioxidants discloses compositions that both do and do not contain antioxidants. *Id.* Accordingly, contrary to Petitioner’s suggestion, *Upsher-Smith* did not hold that silence in the prior art is sufficient *per se* to satisfy a negative limitation. Rather, in *Upsher-Smith* the prior art reference expressly disclosed the negative limitation because it disclosed a feature as *optional*, i.e., it disclosed both a composition that does and does not have the feature.

For the reasons stated above, Petitioner does not cite any authority that silence and/or absence of an element in the prior art is sufficient *per se* to satisfy a negative limitation. Rather, in *Upsher-Smith* and *Süd-Chemie*, the prior art references still either would have been understood by a skilled artisan to disclose the negative limitation, or were found to teach or suggest the negative limitation. We determine, therefore, that Petitioner’s contention that Staack does not expressly require a mobile station to pre-register for location finding services is not, alone, sufficient to show that Staack discloses, or teaches or suggests, the “without pre-registering” limitation. *See also IBM v. Iancu*, 759 F. App’x 1002, 1011 (Fed. Cir. 2019) (explaining that a reference’s silence was not by itself sufficient to establish that the reference teaches a process involving only one user authentication action) (unpub.).<sup>6</sup>

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<sup>6</sup> The Petition asserts unpatentability of claim 1 under 35 U.S.C. § 102, Pet. 3, and the discussion of the “without pre-registering” limitation appears in the context of § 102 in the discussion of claim 1, *id.* at 24–26. Petitioner

Our understanding regarding negative limitations, i.e., silence alone is not sufficient *per se*, is consistent with the Institution Decision. We stated that we were sufficiently persuaded that the “without pre-registering” limitation “may be understood as a negative limitation.” Inst. Dec. 14 (citing *Süd-Chemie*, 554 F.3d at 1005; *Upsher-Smith*, 412 F.3d at 1319). We rejected Patent Owner’s arguments in the Preliminary Response that the “without pre-registration” limitation is not a “negative limitation,” and, therefore, must be expressly disclosed. *Id.* at 12, 14–15. However, nowhere does the Institution Decision state that silence in the prior art is sufficient *per se* to satisfy a negative limitation. *See generally id.* at 11–15. Rather, the Institution Decision states that a negative limitation “*may* be adequately described by a prior art reference if that reference does not otherwise require the presence of the element recited in the negative limitation,” and cites to *Süd-Chemie* and *Upsher-Smith* in support of this statement. *Id.* at 14 (emphasis added). As we discussed above, these two cases do not support the proposition that silence and/or absence of an element in the prior art is sufficient *per se* to satisfy a negative limitation, and in these cases the prior art either would have been understood by a skilled artisan to disclose the limitation, or was understood to teach or suggest the limitation.

3. *Sufficiency of Evidence and Arguments that Staack Discloses the “without pre-registering” Limitation*

The arguments and evidence in the Petition and presented during trial

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argues that Staack *discloses* the “without pre-registering” limitation. *Id.* Petitioner does not provide any additional arguments regarding the “without pre-registering” limitation in the discussion of the other claims challenged under § 102, or in the discussion of the dependent claims challenged under § 103. *See generally id.* at 26–60.

are not sufficient to show that Staack discloses, teaches, or suggests the “without pre-registering” limitation. As we discussed above, silence in the prior art is not sufficient *per se* to disclose a negative limitation. Although a prior art reference may adequately describe a negative limitation if the reference does not otherwise require the presence of the element recited in the negative limitation, it is incumbent on Petitioner to show that the limitation is adequately described. *See, e.g.,* Reh’g Dec. 4 (citing *Süd-Chemie*, 554 F.3d at 1005) (“It is insufficient, however, to show that Staack does not explicitly describe a feature. Rather, Petitioner needed to show that a person of ordinary skill in the art would have understood Staack does not require pre-registering.”). For the reasons discussed herein, Petitioner has not shown that Staack adequately describes providing a location finding service to a mobile station without pre-registering the mobile station with the location finding service.

Unlike *Süd-Chemie*, here Petitioner does not provide persuasive evidence that Staack adequately describes the “without pre-registering” limitation. As we discussed above, the Petition provides nothing more than the contention that Staack does not expressly disclose pre-registration. Pet. 24 (citing Ex. 1008 ¶ 31). Dr. Bartone’s cited testimony similarly provides only the same observation. Ex. 1008 ¶ 31. Neither the Petition, nor Dr. Bartone’s cited testimony, provides any explanation concerning why a skilled artisan would have understood this absence of express disclosure to mean that pre-registering is not required in Staack. This is in contrast with *Süd-Chemie*, which did not rely solely on the lack of disclosure of adhesive coating. Rather, the prior art there taught using heat sealing to adhere film to a microporous layer. In that context, it was understood that adhesive

coating was not used to adhere the film, because the means of adhesion was heat sealing. *See Süd-Chemie*, 554 F.3d at 1004. For the reasons discussed above, we find that Petitioner’s argument that “*Staack* nowhere discloses that pre-registration is required to access the location-based services” is insufficient to show disclosure of the “without pre-registering” limitation. Pet. 24. *See also IBM v. Iancu*, 759 F. App’x at 1011 (explaining that, with respect to a claim limitation reciting a “single-sign-on operation” in which a user is authenticated at a first entity and is not required to perform another authentication at a second entity, silence “would not by itself suffice for the Petitioner to meet its burden to prove, by a preponderance of the evidence, that there was *no* user authentication action” at the second entity).

During trial, Petitioner maintained its position that silence in the prior art is sufficient to satisfy the “without pre-registering” limitation, and did not provide any additional argument or evidence to support its negative limitation argument. *See, e.g.*, Reply 14–15 (discussing the negative limitation argument). Petitioner included a paragraph of argument in the Reply concerning whether the “without pre-registering” limitation is a “negative limitation,” but did not include any additional evidence or argument regarding why the “without pre-registering” limitation is adequately described by the silence in *Staack*. *Id.* Rather, Petitioner relied solely on *Staack*’s lack of express disclosure, without explaining why a skilled artisan would have understood this lack of disclosure to mean pre-registration is not required. *See generally id.* (“[B]ecause nothing in *Staack* requires a mobile device register with a location finding service prior to a request for location finding information, *Staack* discloses the ‘without pre-registering’ recitations.”).



The only other evidence or argument regarding whether *Staack* discloses the negative limitation is Petitioner’s discussion of the *Staack* check feature. *See, e.g., id.* at 24–26. As we discussed above, the Petition is ambiguous as to whether this feature is relied upon to support the negative limitation argument, in addition to supporting the contingent argument.<sup>7</sup> The Petition states “[l]ike the ’667 patent, *Staack* discloses that a mobile station may not release its location information to others.” Pet. 25 (citing Ex. 1003, 14:16–23). The only explanation in the Petition as to why this feature discloses the “without pre-registering” limitation is that the feature is optional. *Id.* (arguing that this disclosure would have informed one of ordinary skill in the art that “registration, while possible, is optional, and thus the process disclosed by *Staack* can be performed without pre-registering the mobile station for the disclosed location finding service”). Although the optional nature of this feature explains why *Staack* discloses a method that both does and does not use this feature, the Petition does not explain why this feature would be considered “pre-registering.” *Id.*

In the Institution Decision, we considered this argument, but were not persuaded that the *Staack* check feature involves pre-registering for a location finding service. Inst. Dec. 15 (“[W]e are not persuaded by Petitioner’s additional argument that *Staack* discloses optionally pre-

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<sup>7</sup> It is unclear whether Petitioner relies on this feature to support the negative limitation argument, especially in view of Petitioner’s position in the Reply that this feature is not considered pre-registering. Reply 18. If this feature were considered pre-registering, then disclosure of this feature, according to Petitioner, would support Petitioner’s argument that “pre-registration is not required” because *Staack* discloses both using, and not using, this feature. Pet. 25.

registering a mobile station with a location finding service. Petitioners have not shown that the mobile station sending the request necessarily has pre-registered with a location finding service [i.e., that the Staack check feature amounts to pre-registering] . . . .”) (citations omitted). Nonetheless, during trial Patent Owner argued that this feature discloses pre-registering. PO Resp. 30–31 (citing Ex. 1003 14:27–29). However, Patent Owner did not address the fact that this feature is optional, and, therefore is not required. *See generally id.* In the Reply, Petitioner agreed with our finding in the Institution Decision that this feature does not involve pre-registering. Reply 17–18 (citing Inst. Dec. 13). In the Final Decision, we determined that this feature is not considered pre-registering for location finding services. Final Dec. 10–11.

As we discussed in the Institution Decision, Final Decision, and Rehearing Decision, we are not persuaded that use of the Staack check feature would have been considered pre-registering a mobile station (e.g., MS1 or MS2) for a location finding service. Inst. Dec. 15; Final Dec. 10–11; Reh’g Dec. 3–4. This feature relates to protecting the confidentiality of MS2 by storing at a home location register (“HLR”) a list of entities, e.g., mobile stations, that are permitted to receive MS2’s location information. Ex. 1003, 14:16–23. Staack explains that the user of MS2 alters the list. *Id.* Neither party explains why, nor are we persuaded that, maintaining a list based on input by MS2 of mobile stations that may receive MS2’s location information amounts to those mobile stations, i.e., the mobile stations requesting a location finding service, “pre-registering” for a location finding service. As we discussed in the Final Decision, the parties have not shown Staack’s disclosure of a user of MS2 *creating a list* of MS1’s approved to

receive MS2's location information shows that *MSI has pre-registered* in order to be included on that list. *See* Final Dec. 10–11. In the Reply, Petitioner agreed that this feature does not describe pre-registering with a location finding service, arguing that “[i]ndeed, *Staack* does not discuss explicitly how the list is formed or used, much less any relationship with a location finding service.” Reply 18 (citing Ex. 1003, 14:24–25). Petitioner argued further that “[a]t best, the list may relate to the one discussed in the previous paragraph dealing with privacy, which, as discussed above, does not involve pre-registering with a location finding service like that in the ’667 patent.” *Id.* For the foregoing reasons, we determine that use of the *Staack* check feature would not have been considered pre-registering for a location finding service. Because use of this feature does not amount to pre-registering for a location finding service, whether the feature is optional proves irrelevant to whether *Staack* discloses the “without pre-registering” claim limitation.

For the above-stated reasons, having considered the evidence and argument that Petitioner provides to show *Staack* discloses the “without pre-registering” limitation, we are not persuaded Petitioner has shown, by a preponderance of the evidence, that *Staack* anticipates or renders obvious the challenged claims, each of which recites the “without pre-registering” limitation. Our determination is in no way inconsistent with, or precluded by, the Institution Decision. Based on the preliminary record, we were persuaded that Petitioner had made a sufficient showing, for purposes of institution, with regard to the “without pre-registering” limitation. Inst. Dec. 12–15. We explained our reasoning, namely that we were persuaded that the “without pre-registering” limitation is a “negative limitation,” which

may be adequately described by a reference that does not otherwise require the presence of the element recited the negative limitation, and we were persuaded that Staack does not expressly disclose pre-registration. *Id.* at 12–14 (citing *Süd-Chemie*, 554 F.3d at 1005; *Upsher-Smith*, 412 F.3d at 1322). We explained that “[o]n the present record, because there is no indication that pre-registration occurs in Staack, we do not infer from Staack’s failure to disclose explicitly that pre-registration does not occur that Staack does not satisfy the disputed limitation for anticipation purposes.” *Id.* at 14 (citation omitted). In other words, Petitioner inferred from Staack’s silence that there is no pre-registration, and Patent Owner drew the opposite inference, namely that pre-registration does occur. At the institution stage, we did not adopt Patent Owner’s inference, and proceeded with institution. *Id.*

However, although Petitioner had made a sufficient showing to support institution of *inter partes* review, “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial.” *Trivascular, Inc.*, 812 F.3d at 1068. For purposes of demonstrating unpatentability, by a preponderance of the evidence, Petitioner bears the burden of showing that Staack adequately describes the “without pre-registering” limitation. As we discussed above, Petitioner’s evidence and arguments are not sufficient to satisfy this burden. As we also discussed above, during trial Petitioner did not provide additional evidence or argument that shows Staack’s silence sufficiently describes, or that a person of ordinary skill in the art would have understood Staack to describe, the “without pre-registering” limitation. The parties addressed other arguments regarding the “without pre-registering” limitation, discussed

below, but none of these arguments addressed sufficiently how Staack's lack of express disclosure would have conveyed to a skilled artisan that Staack does not require pre-registration, or how Staack otherwise discloses the "without pre-registering" limitation.

For completeness, we turn to Patent Owner's arguments, which we do not find persuasive, as we discuss in detail below. Because Petitioner bears the burden of proving unpatentability, a burden that it failed to meet for the reasons discussed above, our findings and determinations on Patent Owner's arguments do not affect the outcome in this case.

In the Patent Owner Response, Patent Owner re-iterated its argument from the Preliminary Response that Staack expressly discloses pre-registration by virtue of its disclosure of registering with a GSM cellular telephone network. PO Resp. 26–27; Prelim. Resp. 11. In the Institution Decision, we rejected the argument that registration with a GSM cellular network is commensurate with registration for a location finding service. Inst. Dec. 13. Registration with a cellular network is generally required of cellular telephones in order to communicate within a cellular network, and was well-known in the prior art. *See, e.g.*, Ex. 1005, 4:30–49 (describing registration with a GSM cellular network). Consistent with this understanding, the '667 patent specification provides that the mobile station registered with the GSM network nonetheless is not pre-registered with a location finding service. Ex. 1001, 1:30–48, 2:65–3:7, 3:44–45, 5:24–30.

In the Patent Owner Response, Patent Owner argued that Staack discloses a *modified* HLR, subscriber database, and billing center in its GSM network, and that accessing these allegedly modified systems requires pre-registration for location services in addition to registration for basic services

in a GSM network. PO Resp. 25. Petitioner responded that Staack's description of the components in the GSM network is no different than the description of GSM components in the '667 patent. Reply 10. Petitioner explained that the '667 patent specification "*does not* equate 'registration for basic services in a GSM network' with 'pre-registration for the location service,' as suggested by Patent Owner (Response 26), but rather explains that the location finding service registration involves subscribing with a vending service, *e.g.*, Finder<sup>TM</sup>, to become a member of a group of friends." *Id.* We credit Petitioner's argument, and agree that registration with a cellular network is not commensurate with pre-registering for a location finding service, because this would be at odds with the '667 specification, which describes registration with a GSM cellular network, which was well known in the art, in systems where there is no pre-registration with a location finding service. Ex. 1001, 1:30–48, 2:65–3:7, 3:44–45, 5:24–30; *see also* Ex. 1005, 4:30–49 (describing registration with a GSM cellular network). Therefore, we find that Staack's disclosure of registration with a GSM network does not describe registration for a location finding service. However, this finding is unrelated to Petitioner's assertion that silence in the prior art is sufficient to satisfy a claim limitation, and does not show that a skilled artisan would have understood that Staack discloses the "without pre-registering" limitation. As discussed above, both Staack and the '667 patent describe *registration with a GSM network*, but the presence of this feature in Staack is neutral as to the issue of whether Staack requires *registration for a location finding service*.

Patent Owner also argued, in the Patent Owner Response, that Staack's disclosure of a list of mobile stations permitted to receive MS2's

location information amounts to pre-registration. PO Resp. 30–31. This disclosure refers to the same optional Staack check feature discussed above that Petitioner relies on in its contingent argument. As we discussed above, this feature is not commensurate with “pre-registering” for location finding services, and Petitioner agreed in the Reply. Reply 17–18 (citing Inst. Dec. 13). This feature, therefore, is neutral as to the issue of whether Staack requires pre-registration for a location finding service.

In the Patent Owner Response, Patent Owner also reiterated its argument from the Preliminary Response that the “without pre-registering” limitation is not a negative limitation. PO Resp. 31–34. Patent Owner’s argument is that “[r]ather than reciting something that the invention is not, this limitation, which specifies the manner in which the entire method must be practiced, specifies a part of what the invention is.” *Id.* at 33. Patent Owner argued that the ’667 patent explains that the need for pre-registration in prior art systems was a failing, and that the invention allows mobile station users to make use of location finding services without having to pre-register. *Id.* at 33–34. Petitioner responded that, contrary to Patent Owner’s assertion, the “without pre-registering” limitation is a negative limitation, and that Patent Owner’s argument that the limitation defines what the invention is, rather than what it is not, is tautological. Reply 14–15.

As we discussed above, we treat this limitation as a negative limitation. *See also* Inst. Dec. 14–15; Reh’g Req. 4. However, as we discussed above, although Petitioner does not necessarily have to show express disclosure, Petitioner still must show a skilled artisan would have understood the art to disclose, teach, or suggest the element recited in the negative limitation. For reasons discussed above, Petitioner has not made

this showing.

For the foregoing reasons, upon consideration of the entire record in this proceeding, we determine Petitioner has not demonstrated, by a preponderance of the evidence, that the challenged claims are unpatentable.

### III. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that claims 1–15 of U.S. Patent No. 7,072,667 B2 have not been shown to be unpatentable; and

FURTHER ORDERED that parties to the proceeding seeking judicial review of this decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.



IPR2015-01715  
Patent 7,072,667 B2

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