

NOTE: This disposition is nonprecedential.

**United States Court of Appeals  
for the Federal Circuit**

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**GOOGLE LLC,**  
*Appellant*

v.

**JI-SOO LEE,**  
*Appellee*

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2017-2228

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Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. IPR2016-00045.

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Decided: March 28, 2019

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ISRAEL SASHA MAYERGOYZ, Jones Day, Chicago, IL, argued for appellant. Also represented by GREGORY A. CASTANIAS, Washington, DC; DAVID B. COCHRAN, Cleveland, OH.

JAMES E. HOPENFELD, Singer Bea LLP, San Francisco, CA, argued for appellee.

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Before PROST, *Chief Judge*, MAYER and LOURIE,  
*Circuit Judges*.

PROST, *Chief Judge*.

Google LLC (“Google”) petitioned for *inter partes* review challenging the validity of claims 45 and 46 of U.S. Patent No. 6,233,518 (“the ’518 patent”). The Patent Trial and Appeal Board (“Board”) instituted review of both claims but on only one of the five grounds raised in the petition. In its final written decision, the Board held that Google failed to establish that claims 45 and 46 are unpatentable.

We affirm the Board’s determination that claims 45 and 46 are not unpatentable over the instituted ground. We remand, however, for the Board to consider whether claims 45 and 46 are unpatentable based on the four non-instituted grounds.

## I

The ’518 patent is purportedly assigned to Ji-Soo Lee (“Lee”).<sup>1</sup> The ’518 patent relates to “a traffic information providing service method and system, and in particular, to a method and a system for providing an image vector-based traffic information.” ’518 patent col. 1 ll. 7–10. Claim 45 is representative and states:

45. A method for displaying an image-based traffic information comprising the steps of:

receiving a traffic information map which includes at least a traffic state map, said traffic state map includes a plurality of time-variant image vector entities in a specified region and each of the time-variant image vector entity includes an attribute-

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<sup>1</sup> The assignment is disputed in the related district court litigation.

designating statement, a[] shape-designating statement and a position-designating statement;

displaying a first image in accordance with a basic map on a screen, said basic map including a plurality of time-invariant image vector entities in the specified region; and

displaying a second image in accordance with said traffic state map such that said second image is cumulatively displayed on the first image.

*Id.* at claim 45.

Google filed an IPR petition challenging claims 45 and 46 of the '518 patent based on five grounds. The Board instituted review of claims 45 and 46 on obviousness based on U.S. Patent No. 5,313,200 (“Sone”) alone or in combination with U.S. Patent No. 5,966,135 (“Roy”). *Google Inc. v. Lee*, No. IPR2016-00045, 2016 WL 2866242, at \*12 (PTAB Apr. 25, 2016) (“*Institution Decision*”). The Board did not institute review of claims 45 and 46 on the following grounds: (1) anticipation by Sone; (2) obviousness in view of the combination of Japanese Patent No. JPH 09-252260 (“Yamada”) and PCT Publication No. WO 95/24029 (“Rosenquist”); (3) anticipation by U.S. Patent No. 5,293,163 (“Kakihara”); and (4) anticipation by Japanese Patent No. JPH 08-7197 (“Degawa”). *Id.*

In its institution decision, the Board construed the claim term “image vector entity” as “a format of information representing an image to be displayed which includes a shape designating statement and a position designating statement used to draw the shape of a real entity at the specified position.” *Id.* at \*3–4. The Board maintained the same construction in its final written decision. *Google Inc. v. Lee*, No. IPR2016-00045, Paper No. 28, at 9–11 (PTAB Apr. 21, 2017) (“*Final Written Decision*”).

In its final written decision, the Board held that Google had not shown by a preponderance of the evidence that

claims 45 and 46 of the '518 patent were unpatentable as obvious based on Sone alone or in combination with Roy. *Id.* at 20.

Google timely appealed. We have jurisdiction pursuant to 28 U.S.C. § 1295(a)(4)(A).

## II

Obviousness is a question of law based on underlying factual determinations. *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015). We review the Board's ultimate obviousness determination de novo and underlying factual findings for substantial evidence. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016). Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938).

Google seeks to overturn the Board's decision upholding the validity of claims 45 and 46. Specifically, Google argues that the Board's analysis deviated from its construction of "image vector entities"—"a format of information representing an image to be displayed which includes a shape designating statement and a position designating statement used to draw the shape of a real entity at the specified position"—and instead required that "Sone transmit the *precise shape* of the congestion marks" to satisfy the limitation. Appellant's Br. 21–22. Although Google attempts to frame its patentability arguments as an issue of claim construction or application, the arguments are directed to the Board's factual analysis of the prior art, which we review for substantial evidence.

The Board determined that "Sone does not teach or suggest that the data *received* from the beacon transmitters contains information that represents the shape or appearance of the specific congestion marks or arrows that are displayed by Sone's vehicle-mounted display system"

because “the directional congestion marks or arrows that are depicted on Sone’s display are *generated locally*” by the processor of Sone’s vehicle-mounted display system. *Final Written Decision*, at 14–15 (emphases added). The Board therefore concluded that “the Petition does not sufficiently persuade us that the type of congestion data sets *received* by Sone’s display system would contain ‘image vector entities’ (i.e., ‘information representing an image to be displayed which includes a shape designating statement and a position designating statement used to draw the shape of a real entity at the specified position’).” *Id.* at 15 (emphasis added). We hold that substantial evidence supports the Board’s finding that Sone does not disclose “receiving a traffic information map which includes at least a traffic state map,” wherein the traffic state map includes “a plurality of time-variant image vector entities” because the congestion marks or arrows that are displayed in Sone are generated locally. *Id.* (citing Sone at col. 3 ll. 12–21, col. 4 ll. 61–67).

Google also argues that the Board erred in finding that a person of ordinary skill in art would not have been motivated to combine Sone and Roy. Appellant’s Br. 36–45. Before the Board, Google presented five rationales for combining Sone and Roy. *See Final Written Decision*, at 18–20. Google reargues many of these rationales on appeal. *See Appellant’s Br.* 36–45. However, the Board considered and rejected each of these rationales, all for a similar reason—that they do not adequately explain why one of ordinary skill in the art would have had reason to convert congestion data sets into image vector entities *before they are received* by Sone’s vehicle-mounted display system. *See Final Written Decision*, at 18–20. We hold that substantial evidence supports the Board’s finding that a person of ordinary skill in the art would not have been motivated to combine Sone and Roy.

We have considered Google’s remaining arguments and find them unpersuasive. We affirm the Board’s final

written decision that claims 45 and 46 of the '518 patent are not unpatentable as obvious based on Sone alone or in combination with Roy.

### III

In light of the Supreme Court's decision in *SAS Institute, Inc. v. Iancu*, 138 S. Ct. 1348 (2018), Google challenges the Board's decision to institute review of claims 45 and 46 of the '518 patent on only one of the five grounds raised in its petition. Google requests that we "remand to the Board so that it may consider these additional, uninstituted grounds." Appellant's Br. 46. Lee contends that we should not remand for the Board to consider the non-instituted grounds because in declining to institute them, the Board already substantively considered and rejected each of the non-instituted grounds. Appellee's Br. 35–39.<sup>2</sup> We agree with Google that remand is appropriate for the Board to address the non-instituted grounds.

The Supreme Court explained in *SAS* "that the petitioner's petition, not the Director's discretion, is supposed to guide the life of" an IPR. 138 S. Ct. at 1356. The Court thus held that the Board cannot institute review of fewer than all claims challenged by a petitioner. *Id.* at 1359–60. Since *SAS*, we have recognized that the Court's reasoning

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<sup>2</sup> At oral argument, Lee also argued that the only proper mechanism for Google to request a remand pursuant to *SAS* was to file a motion to remand before the appeal was heard. Oral Argument at 10:42–12:01, *Google LLC, v. Ji-Soo Lee* (No. 2017-2228), <http://www.cafc.uscourts.gov/oral-argument-recordings>. While we have remanded non-instituted grounds pursuant to *SAS* based on requests made in motions, we have not stated that this is the only mechanism to request *SAS*-based remand. Google properly preserved this argument by requesting remand pursuant to *SAS* in its opening brief. See Appellant's Br. 45–46.

also prohibits the Board from instituting review of fewer than all grounds raised by a petitioner in its petition. *See PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359 (Fed. Cir. 2018) (“We will treat claims and grounds the same in considering the SAS issues currently before us.”). Following SAS, we have remanded to the Board to consider non-instituted claims and grounds. *See, e.g., Adidas AG v. Nike, Inc.*, 894 F.3d 1256, 1257 (Fed. Cir. 2018) (remanding non-instituted grounds for consideration by the Board); *see also BioDelivery Scis. Int’l, Inc. v. Aquestive Therapeutics, Inc.*, 898 F.3d 1205, 1208 (Fed. Cir. 2018) (“Post-SAS cases have held that it is appropriate to remand to the PTAB to consider non-instituted claims as well as non-instituted grounds.”) (collecting cases).

Here, the Board instituted review on one ground of Google’s petition, but declined to institute review on additional grounds. Remand is appropriate for the Board to address the non-instituted grounds in Google’s petition.

#### IV

Because substantial evidence supports the Board’s findings, we affirm the Board’s determination that claims 45 and 46 of the ’518 patent are not unpatentable over Sone alone or in combination with Roy. We remand, however, for the Board to consider whether claims 45 and 46 are unpatentable over the non-instituted grounds.

#### **AFFIRMED AND REMANDED**

#### COSTS

Costs to Lee.