

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC., and
GOOGLE LLC,
Petitioner,

v.

RYAN HARDIN and ANDREW HILL,
Patent Owner.

IPR2022-01331
Patent 9,779,418 B2

Before BART A. GERSTENBLITH, MICHELLE N. WORMMEESTER,
and ARTHUR M. PESLAK, *Administrative Patent Judges*.

WORMMEESTER, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Samsung Electronics Co., Ltd., Samsung Electronics America, Inc. (collectively, “Samsung”), and Google LLC (collectively, “Petitioner”) filed a Petition (Paper 4, “Pet.”) requesting *inter partes* review of claims 11–18 of U.S. Patent No. 9,779,418 B2 (Ex. 1001, “the ’418 patent”). Ryan Hardin and Andrew Hill (collectively, “Patent Owner”) filed a Preliminary Response (Paper 10, “Prelim. Resp.”). With our authorization, Petitioner filed a Preliminary Reply (Paper 12, “Prelim. Reply”) to Patent Owner’s Preliminary Response, and Patent Owner filed a Preliminary Sur-reply (Paper 13, “Prelim. Sur-reply”) to Petitioner’s Preliminary Reply.¹

Petitioner also filed a Notice Ranking Petitions and Explaining Material Differences Between Petitions for U.S. Patent No. 9,779,418. Paper 5 (“Notice”). Patent Owner filed a Response to Petitioner’s Notice. Paper 11 (“Notice Resp.”).

We have jurisdiction under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). Under 35 U.S.C. § 314(a), an *inter partes* review may not be instituted “unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” For the reasons that follow, we institute an *inter partes* review as to all the challenged claims of the ’418 patent, namely, claims 11–18, based on the sole ground presented in the Petition.

¹ We authorized the parties to file these papers in an e-mail dated December 8, 2022.

II. BACKGROUND

A. Related Proceedings

The parties identify a related federal district court case, *Hardin v. Samsung Electronics Co.*, No. 2:21-cv-00290-JRG (E.D. Tex.). Pet. 72; Paper 8, 1 (Patent Owner’s Mandatory Notices).

The parties also indicate that Petitioner concurrently filed several other, related petitions for *inter partes* review. Pet. 73; Paper 8, 1. Two related petitions involve the ’418 patent, one petition challenging claims 1–10 (not challenged in this proceeding) in IPR2022-01330, and the other petition challenging claims 19–25 (not challenged in this proceeding) in IPR2022-01332. Pet. 73; Notice 2; Paper 8, 1. In separate decisions, we grant institution in those proceedings.

B. The ’418 Patent

As background, the ’418 patent explains that advertisements and other content can be “broadcast to any mobile device within a city, or a similar area,” or can be delivered over the Internet “in response to a request, received from the receiving device.” Ex. 1001, 1:40–47. According to the ’418 patent, in order to provide more targeted advertising, a “content delivery platform can receive a request from a registered application program for content to be displayed on a mobile device, and the request can be used to determine a target location.” *Id.* at 1:60–64.

An exemplary content delivery system is depicted in Figure 1 of the ’418 patent, reproduced below.

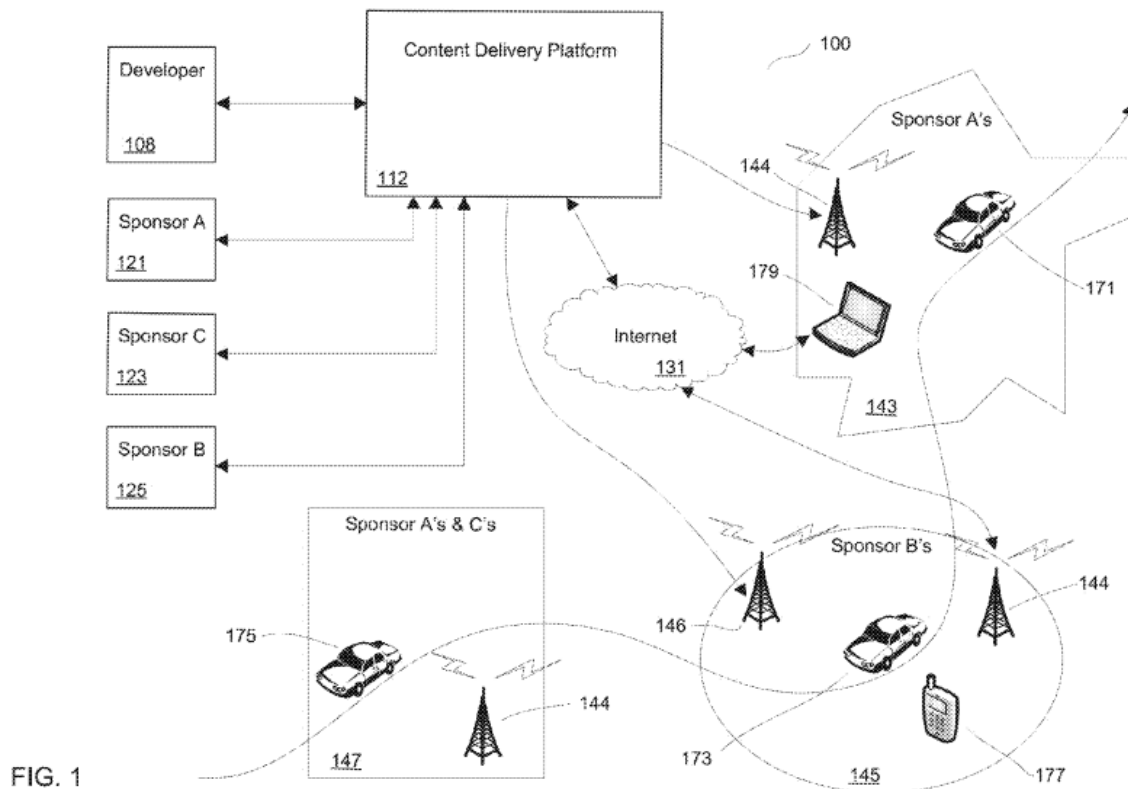


Figure 1 is an “abstract representation of exclusive content delivery to particular reserved areas.” Ex. 1001, 2:41–43. System 100, as shown in Figure 1, provides “exclusive delivery of advertising or other content to registered applications running on mobile devices located within a particular proximity to a reserved geographic area.” *Id.* at 3:9–13. System 100 “includes content delivery platform 112, which is in communication with developer platform 108, and systems or individuals operating under control of sponsor A 121, sponsor C 123, and sponsor B 125.” *Id.* at 3:13–17.

For example, content delivery platform 112 receives a request from developer platform 108 to register a program or other application for use on mobile devices, and “can use the registered application program to provide selected content to mobile devices.” Ex. 1001, 3:17–21. According to the ’418 patent, “a registered application program is provided to mobile devices

by developer platform 108, content delivery platform 112, one of sponsor A 121, sponsor C 123, or sponsor B 125, or by another desired delivery mechanism.” *Id.* at 3:22–26. Additionally, “[s]ponsor A 121, sponsor C 123, or sponsor B 125 can reserve an exclusive interest in a particular geographic area by sending a request to content delivery platform 112.” *Id.* at 3:32–34. The ’418 patent explains that “the request can be for exclusive delivery of content to mobile devices running any registered application within given geographic areas, or for content to be delivered to particular registered applications based on a target location.” *Id.* at 3:34–39.

Figure 2 of the ’418 patent is reproduced below.

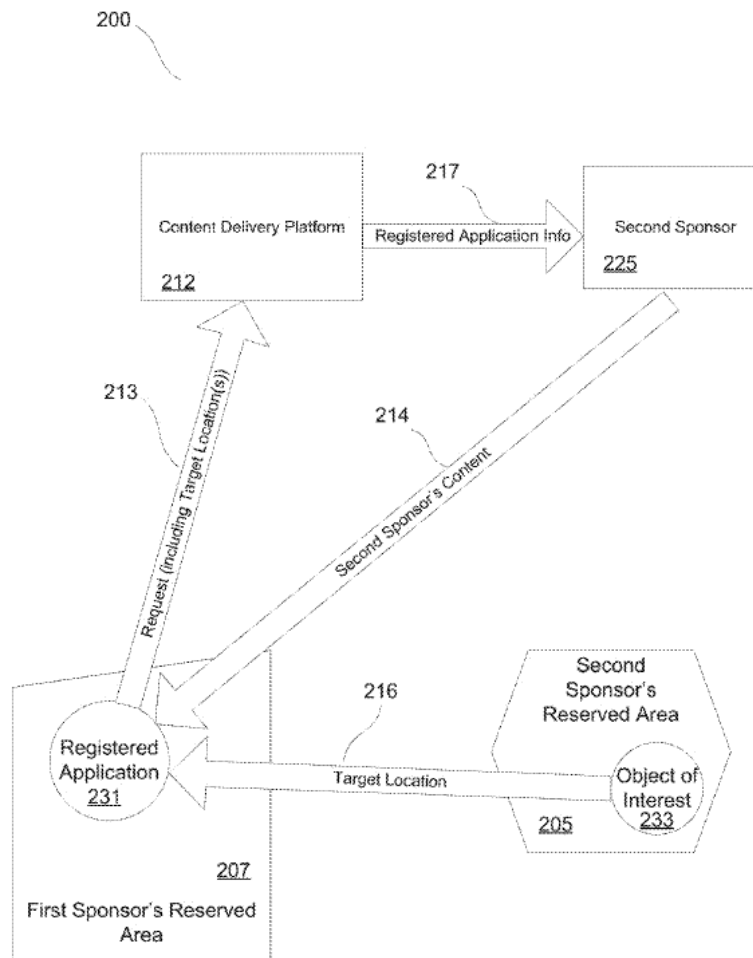


FIG. 2

Figure 2 “is a diagram illustrating a target location other than the location of the mobile device executing a registered application.” Ex. 1001, 2:44–47.

The ’418 patent explains the following regarding Figure 2:

[A] user of registered application 231 is located within the perimeter defining first sponsor’s reserved area 207. Object of interest 233 is located in second sponsor’s reserved area 205. In some embodiments, object of interest 233 can be any type of object of interest to the user of registered application 231. . . . [O]bject of interest 233 could be a friend . . . employing . . . [a] device capable of sending location information 216 . . . to registered application 231. In some embodiments, target location information 216 can be any type of information that can be used to determine the location of the object of interest 233. . . .

In response to receiving the target location information 216 from object of interest 233, registered application 231 can send a request 213 to content delivery platform 212. The request can include, but is not limited to, information indicating the location of object of interest 233, a request for content, information indicating the location of registered application 231, information indicating the identity of the registered application 231, and a previously received request identifier.

Content delivery platform 212 can receive and process request 213 to identify the location of registered application 231 and the location of object of interest 233. . . .

Content delivery platform 212 can provide registered application information 217 to second sponsor 225 to allow second sponsor 225 to deliver second sponsor’s content 214 to registered application 231. . . . In some embodiments, application information 217 need not be provided to second sponsor 225, but instead can be processed internally by content delivery platform 212, and a determination can be made for second sponsor’s content 214 to be delivered directly to application 231 from content delivery platform 212, or a third party

Id. at 5:43–6:27.

Figure 4 of the '418 patent is reproduced below.

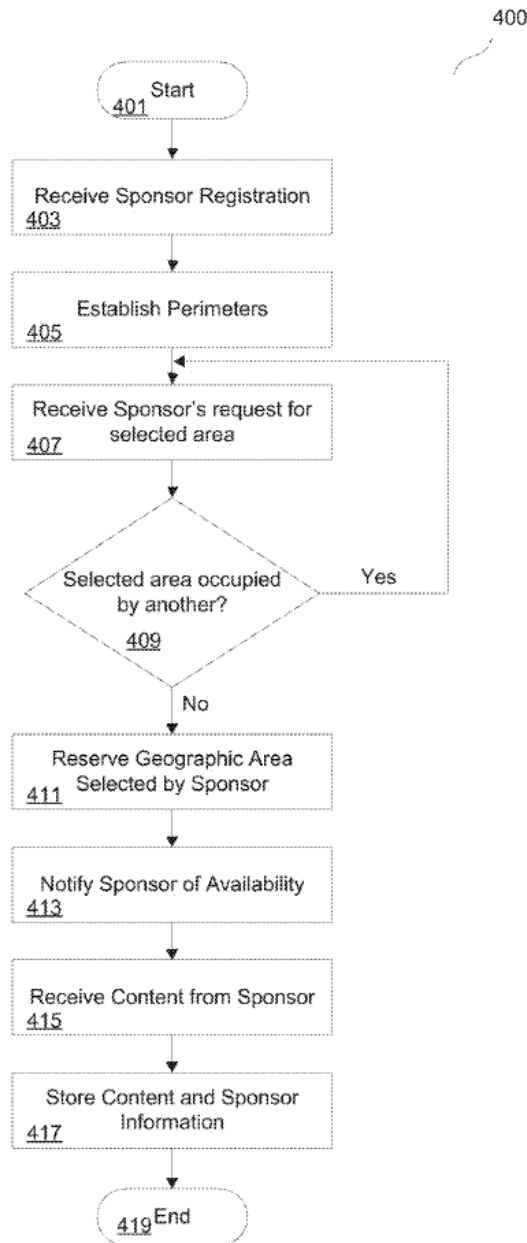


FIG. 4

Figure 4 “is a flowchart illustrating a method of reserving a geographic area.” Ex. 1001, 2:51–53. In particular, the '418 patent states that method 400 “allow[s] sponsors to reserve particular geographic areas.” *Id.* at 8:62–65. The '418 patent explains the following regarding the disclosed method of reserving a geographic area:

Method 400 begins, as illustrated by block 401. As illustrated by block 403, a content delivery platform, for example content delivery platform 112 as illustrated in FIG. 1, can receive a request for sponsor registration As illustrated by block 405, the sponsor can establish perimeters defining geographic areas of exclusive or semi-exclusive control. These geographic areas are areas the sponsor wishes to reserve for delivery of his own advertisements or other content controlled by the sponsor.

. . . .

As illustrated by block 407, a sponsor's request for a selected area is received. . . .

As illustrated by block 411, if an area selected for exclusive or semi-exclusive content delivery is available, the selected geographic area can be reserved for the sponsor. . . .

A sponsor can provide content for delivery to mobile devices having target locations contained within its reserved area, as illustrated by block 415.

Id. at 8:65–9:46.

C. Illustrative Claim

As noted above, Petitioner challenges claims 11–18 of the '418 patent. Claim 11, reproduced below, is independent and illustrative of the claims under challenge.

11. A mobile device comprising:
 - memory;
 - at least one processor operably coupled to the memory;
 - a location-determination component tangibly embodied in the mobile device for determining the mobile device's physical geographic location; and
 - at least one module stored in the memory and configured for execution by the at least one processor, wherein the at least one module comprises instructions for:

implementing, on the mobile device, at least one computer readable program instruction, made available for use by one or more distinct application programs operating on the mobile device, for receiving, from a particular one application program of the one or more distinct application programs during the particular one application program's execution on the mobile device, a request to reserve, for the particular one application program, at least one designated geographic area of interest for having a particular associated identifier exclusively provided for use by the particular one application program after it is determined, by at least use of the at least one processor and of location information representing a physical geographic location of the mobile device as determined by the location-determination component, that the mobile device has at least entered the at least one designated geographic area of interest, wherein the at least one computer readable program instruction comprises at least one input parameter for receiving, from the particular one application program, data representing a) the particular associated identifier as provided content associated with the at least one designated geographic area of interest and exclusively related to the particular one application program, and b) a perimeter definition defining, with at least reference to longitude and latitude, the at least one designated geographic area of interest, and wherein the one or more distinct application programs each comprises a system of executable coded instructions as programmed by at least one developer for execution on the mobile device;

receiving, using the at least one computer readable program instruction, from a first particular application program during its execution on the mobile device, a first request for a reservation for a first particular designated geographic area of interest for having a first particular associated identifier

- exclusively provided for use by the first particular application program after it is determined that the mobile device has at least entered the first particular designated geographic area of interest, wherein the first request comprises data representing a) the first particular associated identifier, represented by a data string, as provided content by the first particular application program to be associated with the first particular designated geographic area of interest and exclusively related to the first particular application program, and b) a first perimeter definition provided by the first particular application program, wherein the first perimeter definition comprises at least data representing a first latitude and longitude coordinate and a first radius value for defining the first particular designated geographic area of interest;
- determining availability for the first particular designated geographic area of interest to be reserved for the first particular application program;
- using the first perimeter definition in conjunction with the first particular associated identifier to establish the first particular designated geographic area of interest in the first request as an area reserved for first content related to the first particular application program and not an area reserved for first content related to other application programs, wherein the first content related to the first particular application program comprises the first particular associated identifier;
- storing, in the memory, in response to receiving the first request, after availability for the first particular designated geographic area of interest to be reserved for the first particular application program has been positively determined, an at least first record, for the first particular application program, associated with the first particular associated identifier and the first particular designated geographic area of interest, thereby designating the first particular application

program as a first one of the one or more registered application programs on the mobile device, wherein the one or more registered application programs on the mobile device each consists of an application program designated for having a particular identifier, being associated with a particular reserved geographic area of interest, to be exclusively provided for use by said application program after it is determined, by at least use of the at least one processor and of the location information, that the mobile device has at least entered said particular reserved geographic area of interest;

receiving, using the at least one computer readable program instruction, from a second particular application program during its execution on the mobile device, a second request for a reservation for a second particular designated geographic area of interest for having a second particular associated identifier exclusively provided for use by the second particular application program after it is determined that the mobile device has at least entered the second particular designated geographic area of interest, wherein the second request comprises data representing a) the second particular associated identifier, represented by a data string, as provided content by the second particular application program to be associated with the second particular designated geographic area of interest and exclusively related to the second particular application program, and b) a second perimeter definition provided by the second particular application program, wherein the second perimeter definition comprises at least data representing a second latitude and longitude coordinate and a second radius value for defining the second particular designated geographic area of interest;

determining availability for the second particular designated geographic area of interest to be reserved for the second particular application program;

using the second perimeter definition in conjunction with the second particular associated identifier to establish the second particular designated geographic area of interest in the second request as an area reserved for second content related to the second particular application program and not an area reserved for second content related to other application programs, wherein the second content related to the second particular application program comprises the second particular associated identifier;

storing, in the memory, in response to receiving the second request, after availability for the second particular designated geographic area of interest to be reserved for the second particular application program has been positively determined, an at least second record, for the second particular application program, associated with the second particular associated identifier and the second particular designated geographic area of interest, thereby designating the second particular application program as a second one of the one or more registered application programs on the mobile device;

selecting the first particular associated identifier associated with the at least first record stored in the memory to be provided for use by the first one of the one or more registered application programs on the mobile device after it is determined, by at least use of the at least one processor, of the location information, and of the first particular designated geographic area of interest associated with the at least first record stored in the memory for the first one of the one or more registered application programs on the mobile device, that the mobile device has at least entered the first particular designated geographic area of interest associated with the at least first record stored in the

- memory and has remained therein for at least a first designated length of time;
- selecting the second particular associated identifier associated with the at least second record stored in the memory to be provided for use by the second one of the one or more registered application programs on the mobile device after it is determined, by at least use of the at least one processor, of the location information, and of the second particular designated geographic area of interest associated with the at least second record stored in the memory for the second one of the one or more registered application programs on the mobile device, that the mobile device has at least entered the second particular designated geographic area of interest associated with the at least second record stored in the memory and has remained therein for at least a second designated length of time;
- providing, to the first one of the one or more registered application programs on the mobile device, at least the first particular associated identifier from its selecting in response to receiving, from the first one of the one or more registered application programs on the mobile device, a request to receive content; and
- providing, to the second one of the one or more registered application programs on the mobile device, at least the second particular associated identifier from its selecting in response to receiving, from the second one of the one or more registered application programs on the mobile device, a request to receive content.

Ex. 1001, 18:59–21:39.

D. Asserted Ground of Unpatentability

Petitioner challenges claims 11–18 of the ’418 patent on the following sole ground of obviousness. Pet. 3, 21–69.

Claims Challenged	35 U.S.C. § ²	Reference(s)/Basis
11–18	103	Hardin ’665, ³ Salmre ⁴

In support of its arguments, Petitioner relies on a Declaration of David H. Williams (Ex. 1003).

Patent Owner submits a Declaration of Scott Andrew Denning (Ex. 2001) to support its Preliminary Response.

III. DISCUSSION

A. Level of Ordinary Skill in the Art

We consider the asserted ground of unpatentability in view of the understanding of a person of ordinary skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). Relying on the declaration testimony of Mr. Williams, Petitioner proposes that a person of ordinary skill in the art at

² The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 103 that became effective on March 16, 2013. One of the central issues in this proceeding is the priority date of the challenged claims. The application for the ’418 patent was filed on January 29, 2016 (Ex. 1001, code (22)), and claims priority to an application filed on May 1, 2009 (*id.* at code (63)). Petitioner contests the ’418 patent’s priority claim, asserting that the earliest priority date of the challenged claims is January 29, 2015.

Pet. 22. Because we find that Petitioner has established a reasonable likelihood of prevailing on the present record, we apply the current version of § 103 here. Our analysis, however, would be the same regardless of which version of the statute is applied because the critical issues before us are not impacted by the differences in the two versions of the statute.

³ Hardin et al., U.S. Publ’n No. 2010/0279665 A1, Nov. 4, 2010 (Ex. 1005).

⁴ Salmre et al., U.S. Publ’n No. 2006/0116817 A1, June 1, 2006 (Ex. 1006).

the time of the invention “would have had at least a bachelor’s degree in computer science or a comparable field of study and at least five years of professional experience in mobile or location-based computing or other relevant academic experience.” Pet. 20 (citing Ex. 1003 ¶¶ 38–41).

In the Preliminary Response, Patent Owner acknowledges Petitioner’s proposed level of ordinary skill in the art, but does not take a position on the issue. Prelim. Resp. 46. Mr. Denning, however, applies Petitioner’s proposed level of ordinary skill in the art in his declaration supporting Patent Owner’s Preliminary Response. Ex. 2001 ¶ 26.

On this record, at this stage of the proceeding, we find that Petitioner’s uncontested proposed level of ordinary skill in the art is consistent with the level of ordinary skill in the art reflected by the ’418 patent and the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978). Therefore, we adopt Petitioner’s proposed level of ordinary skill in the art in our consideration of the issues presently before us.

B. Claim Construction

In an *inter partes* review proceeding, we construe a claim of a patent “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” *See* 37 C.F.R. § 42.100(b) (2019). That standard involves construing claims in accordance with the ordinary and customary meaning of such claims as would have been understood by one of ordinary skill in the art at the time of the invention.

See id.; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–14 (Fed. Cir. 2005) (en banc).

Petitioner asserts that it “believe[s] that no express claim constructions are necessary, and the claims should be given their plain and ordinary meaning in this proceeding.” Pet. 21. Similarly, Patent Owner asserts that it “do[es] not believe the Board needs to construe any terms.” Prelim. Resp. 33. For purposes of this Decision, we conclude that no claim term requires express interpretation at this time to resolve any controversy in this proceeding. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

C. Priority Date for the Challenged Claims

As a preliminary matter, we consider whether challenged claims 11–18 are entitled to the earliest claimed priority date. The ’418 patent issued from U.S. Application No. 15/009,961 (“the ’961 application”), which was filed on January 29, 2016. Ex. 1001, codes (21), (22). Through a chain of continuation applications, the ’961 application claims priority to U.S. Application No. 12/434,094 (“the ’094 application”), which was filed on May 1, 2009, and published as Hardin ’665 (one of the references asserted by Petitioner). Ex. 1001, 1:7–22; Ex. 1005, code (21). The parties dispute whether the challenged claims are entitled to the priority date of the ’094 application. Pet. 21–27; Prelim. Resp. 44–61. If the challenged claims are entitled to the priority date of the ’094 application, then Hardin ’665 does not qualify as prior art, which means Petitioner cannot rely on Hardin ’665 in its obviousness challenge. If, however, the challenged claims are not entitled to the priority date of the ’094 application, then Hardin ’665

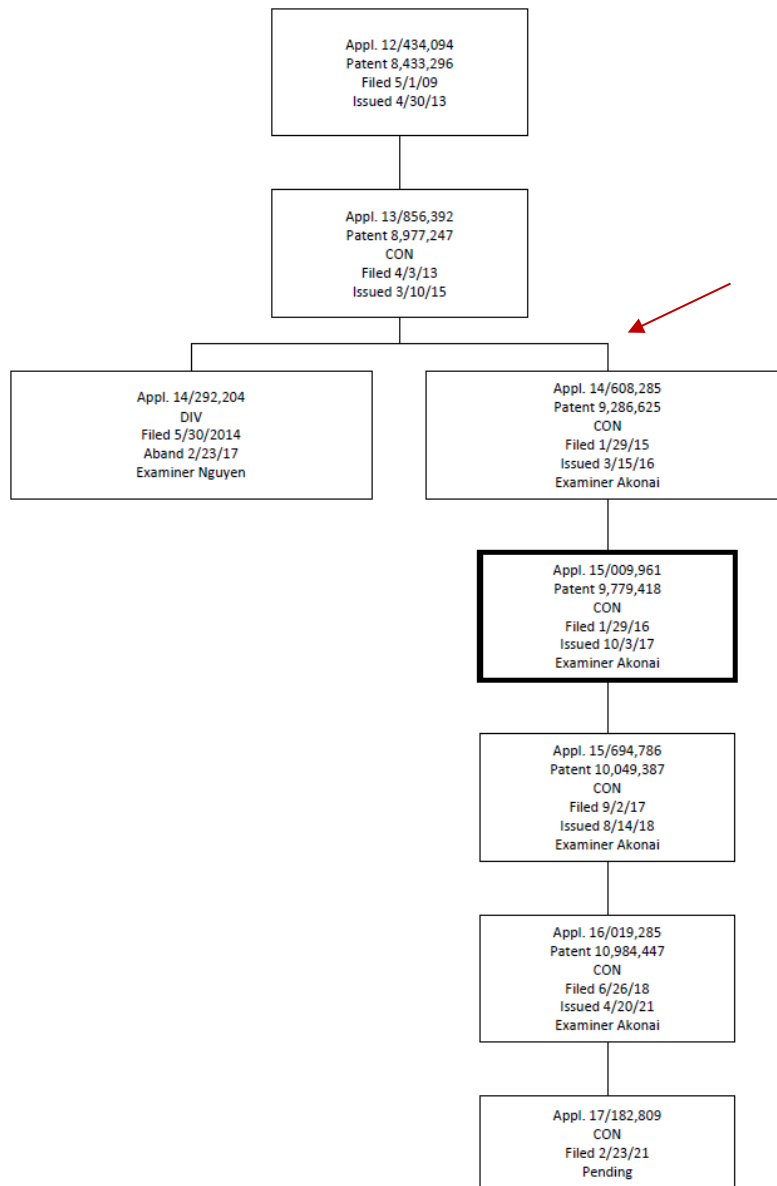
qualifies as prior art and is available for Petitioner to rely on in its obviousness challenge. Thus, we address this issue before we consider Petitioner's obviousness challenge.

As the U.S. Court of Appeals for the Federal Circuit has explained, “[i]n an *inter partes* review, the burden of persuasion is on the petitioner to prove ‘unpatentability by a preponderance of the evidence,’ 35 U.S.C. § 316(e), and that burden never shifts to the patentee.” *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). Additionally, “[a] second and distinct burden, the burden of production, or the burden of going forward with evidence, is a shifting burden, ‘the allocation of which depends on where in the process of trial the issue arises.’” *Id.* at 1379 (citing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1327 (Fed. Cir. 2008)). Thus, although Petitioner has the ultimate burden of persuasion to prove unpatentability, Patent Owner must demonstrate entitlement to a priority date when Patent Owner relies on that priority date to overcome an anticipation or obviousness argument. *See id.* at 1379–80 (discussing burdens in *inter partes* review to show entitlement to provisional filing dates and relying on infringement cases involving continuation-in-part applications); *In re NTP, Inc.*, 654 F.3d 1268, 1276 (Fed. Cir. 2011) (“[A] patent’s claims are not entitled to an earlier priority date merely because the patentee claims priority. Rather, for a patent’s claims to be entitled to an earlier priority date, the patentee must demonstrate that the claims meet the requirements of 35 U.S.C. § 120.” (citations omitted)); *Rsch. Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 870–71 (Fed. Cir. 2010); *Tech. Licensing*, 545 F.3d at 1327–29; *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1305–06 (Fed. Cir.

2008). Accordingly, the burden of demonstrating that the challenged claims are entitled to the priority date of the '094 application falls on Patent Owner.⁵

Petitioner provides the following family tree of the '418 patent, which we have annotated by including a red arrow. Pet. 12.

⁵ Petitioner argued the same—that Patent Owner has “the burden of proving entitlement to a priority date earlier than the filing date” of the '418 patent (Pet. 27)—and Patent Owner’s Preliminary Response does not contest that position (*see generally* Prelim. Resp.).



The family tree above identifies the '418 patent with a bold rectangle (as compared to the other rectangles). The family tree shows that the '961 application (which issued as the '418 patent) claims priority to U.S. Application No. 14/608,285 (“the '285 application”), which was filed on January 29, 2015. Ex. 1001, code (63), 1:7–22. The '285 application claims priority to U.S. Application No. 13/856,392 (“the '392 application”), which was filed on April 3, 2013. *Id.* The '392 application claims priority to the

'094 application, filed on May 1, 2009. Petitioner asserts that the '094 application “shares the same specification as the '418 patent.” Pet. 22. But, Petitioner contends that there is a break in the priority chain where we placed the red arrow in the family tree shown above. *Id.* at 26–27.

According to Petitioner, the challenged claims recite new matter that is not present in the '094 application or the '392 application. Pet. 22. Petitioner asserts that because the challenged claims include limitations not supported by the earlier-filed applications from which the '418 patent claims priority, the '418 patent does not receive the benefit of the '094 application's filing date or the '392 application's filing date. *Id.* at 26–27 (citing *Reiffin v. Microsoft Corp.*, 214 F.3d 1342, 1346 (Fed. Cir. 2000)). Specifically, Petitioner points to two limitations of the challenged claims as allegedly reciting new matter: (1) “receiving, from a particular one application program . . . a request to reserve, for the particular one application program, at least one designated geographic area of interest,” (Pet. 22 (citing Ex. 1001, claim 11)), and (2) “implementing, on the mobile device, at least one computer readable program instruction . . . for receiving, from a particular one application program . . . during the particular one application program's execution on the mobile device, a request to reserve . . . at least one designated geographic area of interest” (*id.* at 24 (citing Ex. 1001, claim 11)). We address each claim limitation in turn.

1. Receiving a Request to Reserve a Geographic Area of Interest from an Application Program

We start with the claim limitation, “receiving, from a particular one application program . . . a request to reserve, for the particular one

application program, at least one designated geographic area of interest.”

We first consider the parties’ arguments, then we turn to our analysis.

a. The Parties’ Arguments

Regarding this first limitation asserted to be new matter, Petitioner contends that “the shared specification only discloses a system in which sponsors can make reservation requests.” Pet. 22–23 (citing Ex. 1001, Fig. 4, 2:21–24, 3:3–8, 3:22–43, 8:62–65, 9:5–7, 9:28–43; Ex. 1003 ¶¶ 101–102). Petitioner asserts that “[t]he specification neither discloses a system in which an application program—or any entity other than a sponsor—can send a reservation request, nor suggests that an application program could be a sponsor, nor suggests that a sponsor can be on the mobile device.” *Id.* at 23 (citing Ex. 1003 ¶¶ 101–106). Petitioner further asserts that, although Figure 2 shows that registered application 231 sends request 213 to content delivery platform 212, “request 213 is a request for content, not a request to reserve a geographic area.” *Id.* at 8 (citing Ex. 1001, Fig. 2, 1:60–64, 5:43–47, 5:62–6:27, 11:46–49). Petitioner acknowledges that the ’418 patent states that request 213 may include additional information, but asserts that none of that information is a request to reserve a geographic area. *Id.* (citing Ex. 1001, 5:64–6:3; Ex. 1003 ¶¶ 70, 102–104).

Additionally, Petitioner contends that a similar limitation was at issue in claims included in related U.S. Application No. 14/292,204 (“the ’204 application”) and that the Examiner reviewing that application rejected the claims because the specification did not indicate that one or more sponsors is at least one or more instances of the application program. Pet. 23–24 (citing Ex. 1014, 49–55, 90–91 (file history of the

'204 application)). Petitioner states that, after the Examiner rejected the pending claims in the '204 application, Patent Owner did not respond to the office action and the '204 application went abandoned. *Id.* at 16 (citing Ex. 1014, 122).

Further, Petitioner notes that when Patent Owner originally sought to add this limitation to the claims of the '392 application, Patent Owner asserted that the limitation was supported by paragraphs 19, 67, and 68 of the specification. Pet. 24 (citing Ex. 1010, 172 (file history of the '392 application)). Petitioner contends, however, that “[n]one of these paragraphs disclose a system in which an application program can send a reservation request or suggest that an application program could be a sponsor.” *Id.* (citing Ex. 1003 ¶¶ 82, 105–106). Petitioner argues that paragraph 19 does not support the limitation, that paragraph 67 “merely explains that the invention can be implemented in hardware and/or software,” and paragraph 68 “generally describes the meaning of computer-usable or computer readable media.” *Id.* (citing Ex. 1002, 42–43 (file history for the '418 patent); Ex. 1003 ¶¶ 82, 106).

Patent Owner responds that “[t]he crux of Petitioner[’s] argument is that the specification provides written description support only for *sponsors* to request to reserve a geographic area of interest,” but “[t]hat myopic view of the specification fails to account for the knowledge of a [person of ordinary skill in the art] reading the specification.” Prelim. Resp. 51. Patent Owner contends that one of ordinary skill in the art “would have readily understood from the specification that a request to reserve a geographic area of interest may also be made from an application program, and as such there

is written description support for claims with such a limitation.” *Id.* at 51–52 (citing Ex. 2001 ¶¶ 83–92).

In particular, Patent Owner acknowledges that the specification “discloses that sponsors may reserve a geographic area of interest by making a request to, *e.g.*, the content delivery platform,” but Patent Owner contends that Petitioner ignores that the specification also teaches that “sponsors may provide the application programs on the mobile devices.” Prelim. Resp. 52 (citing Ex. 1008, at 19 ¶ 17, 20 ¶ 20 (file history of ’094 application)).

Patent Owner points to the following disclosure: “In some embodiments, a ***registered application program is provided to mobile devices by developer platform 108, content delivery platform 112, one of sponsor A 121, sponsor C 124, or sponsor B 125***, or by another desired delivery mechanism.” *Id.* (quoting Ex. 1008, at 20 ¶ 19) (emphases added by Patent Owner). Patent Owner also asserts that the specification teaches that “‘systems’ operate under the control of sponsors.” *Id.* (citing Ex. 1008, at 20 ¶ 18). Patent Owner contends that one of ordinary skill in the art “would have understood from these disclosures that an application program would make a request to reserve a geographic area of interest, on behalf of, for example, the sponsor that provided that application program to the mobile device.” *Id.* at 52–53 (citing Ex. 2001 ¶¶ 84–86; Ex. 2006, 10–11, 21–23 (deposition transcript of Ryan Hardin)). Patent Owner asserts that one of ordinary skill in the art “would have necessarily expected that the application program would perform acts for the sponsor, including requesting to reserve the geographic area of interest,” as “the application program may come from the sponsor and is controlled by the sponsor.” *Id.* at 53 (citing Ex. 2001 ¶¶ 86–89).

Additionally, Patent Owner contends that its argument “is buttressed by other portions of the specification which teach that the application programs found on the mobile devices are able to make requests to the content delivery platform.” Prelim. Resp. 53. Specifically, Patent Owner points to the following disclosure: “registered application 231 can send a request 213 to content delivery platform 212. The request can include, **but is not limited to**, . . . a request for content, information indicating the location of registered application 231, information indicating the identity of the registered application 231, and a previously received request identifier.” *Id.* (quoting Ex. 1008, at 24 ¶ 30) (emphasis added by Patent Owner). Patent Owner asserts that this disclosure shows that “the specification does not limit the types of requests an application program may make to the content delivery platform.” *Id.* (citing Ex. 2001 ¶ 91).

Patent Owner argues that one of ordinary skill in the art “would have understood that a request to reserve a geographic area of interest would have fallen within the scope of the types of requests that the application program makes” particularly because “it was well known that applications on mobile devices could request geographic information at the time of the invention.” Prelim. Resp. 53–54 (citing Ex. 2001 ¶¶ 32–35, 91–92). Patent Owner contends that Petitioner and its declarant Mr. Williams “fail to account for this knowledge” of one of ordinary skill in the art. *Id.* at 54 (citing *Hologic, Inc. v. Smith & Nephew, Inc.*, 884 F.3d 1357, 1363 (Fed. Cir. 2018)). Patent Owner asserts that “[t]he law does not require the specification to contain . . . a verbatim repetition of the claim language” (*id.* (citing *Yingbin-Nature (Guangdong) Wood Indus. Co. v. Int’l Trade Comm’n*, 535 F.3d 1322, 1334 (Fed. Cir. 2008))), and “[w]hen the specification is viewed from the eyes of

[one of ordinary skill in the art] with knowledge of what was known in the art, the specification sufficiently discloses that the inventors were in possession of an invention that includes an application program making a request to reserve a geographic area.” *Id.* (citing Ex. 2001 ¶¶ 83–92).

b. Analysis

“[T]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Ariad Pharms., Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc) (citing *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1562–63 (Fed. Cir. 1991)). “[T]he hallmark of written description is disclosure.” *Id.* “[T]he test requires an objective inquiry into the four corners of the specification from the perspective of a person of ordinary skill in the art. Based on that inquiry, the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed.” *Id.* “To obtain the benefit of the filing date of a parent application, the claims of the later-filed application must be supported by the written description in the parent ‘in sufficient detail that one skilled in the art can clearly conclude that the inventor invented the claimed invention as of the filing date sought.’” *Anascape, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333, 1335 (Fed. Cir. 2010) (quoting *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997)). “In order to satisfy the written description requirement, the disclosure as originally filed does not have to provide in haec verba support for the claimed subject matter at issue.” *Yingbin-Nature*, 535 F.3d at 1334. But, “[i]t is not sufficient for purposes of

the written description requirement of [35 U.S.C.] § 112 that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose. Each application in the chain must describe the claimed features.” *Lockwood*, 107 F.3d at 1572.

“[T]he level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology.” *Ariad*, 598 F.3d at 1351 (citing *Capon v. Eshhar*, 418 F.3d 1349, 1357–58 (Fed. Cir. 2005)). “This inquiry . . . is a question of fact.” *Id.* (citing *Ralston Purina Co. v. Far-Mar-Co, Inc.*, 772 F.2d 1570, 1575 (Fed. Cir. 1985)).

First, we agree with Patent Owner that the field of mechanical and electrical-based inventions usually involves predictable factors and can be more predictable than other fields, such as chemistry and biology. *See* Prelim. Resp. 46 n.9 (citing *In re Fisher*, 427 F.2d 833, 839 (CCPA 1970); *Burroughs Welcome Co. v. Barr Labs, Inc.*, 40 F.3d 1223, 1228 (Fed. Cir. 1994)). We also agree with Patent Owner that the level of ordinary skill in the art proposed by Petitioner and adopted, on the present record, for purposes of this Decision (a bachelor’s degree in computer science or comparable field and “at least five years of professional experience . . . or other relevant academic experience”) is relatively high and that combined with the more predictable field of art can lower the level of detail required to show that the ’094 application provides sufficient support for the challenged claims. *See id.* at 46 (quoting Ex. 1003 ¶ 40) (citing *Hologic*, 884 F.3d at 1361).

Additionally, we recognize Patent Owner’s arguments and evidence regarding the knowledge that one of ordinary skill in the art would have had regarding the state of the art. *See* Prelim. Resp. 47–51. In particular, Patent Owner points to knowledge of geofencing technology, which was used to help determine the location of mobile phone callers in different circumstances, including when calling “911.” *Id.* at 47 (citing Ex. 2001 ¶ 31). Also, Patent Owner notes that it was well established that applications running on mobile devices could make requests for geographic location data. *Id.* at 48 (citations omitted) (also relying on Salmre’s teaching of an application “pulling” information for use on geographical maps). Patent Owner contends that based on, *inter alia*, these teachings, “it was well-known to a [person of ordinary skill in the art] that applications running on a mobile device can request geographic data, such as information providing location data and/or for rendering geographic maps.” *Id.* at 48–49 (citing Ex. 2001 ¶¶ 32–35). We also recognize Patent Owner’s arguments and evidence that it was “well-known to a [person of ordinary skill in the art] that mobile devices implemented client-server functionality locally on the device.” *Id.* at 49 (citing Ex. 2001 ¶¶ 36–39) (also relying on additional references from the relevant time period).

Even in light of the knowledge of one of ordinary skill in the art regarding the state of the art, the more predictable field of mechanical/electrical technologies, and the relatively high level of skill in the art, on the present record, there is a disconnect between what the ’094 application discloses and the specific limitation of the challenged claims at issue, which recites that the application program makes a request to reserve a geographic area of interest. In addition to the ’094 application’s

failure to disclose this limitation expressly, the '094 application fails to reasonably convey to one of ordinary skill in the art any hint, suggestion, or indication that Patent Owner possessed an invention in which an application program makes such a request. To the contrary, based on our review of the present record, we agree with Petitioner that the '094 application consistently and repeatedly discloses that a sponsor makes such a request and does not attribute that action expressly, inherently, or otherwise to any other aspect of the invention. *See, e.g.*, Pet. 13 (identifying several instances where the '094 application attributes that action to a sponsor).

Additionally, the evidence does not support Patent Owner's argument that request 213 is so broadly described in the '094 application that the description would have reasonably conveyed to one of ordinary skill in the art that Patent Owner possessed a system in which request 213 includes a request to reserve a geographic area of interest. *See* Prelim. Resp. 53. In particular, request 213 is described with reference to Figure 2. The '094 application's description of Figure 2 begins⁶ by stating, "[a]s shown in Figure 2, a user of registered application 231 is located within the perimeter defining first sponsor's reserved area 207." Ex. 1008, at 23 ¶ 29. This sentence indicates that, in the discussion of Figure 2 that follows, the '094 application assumes a sponsor has already made a request to reserve a geographic area of interest and that such request was granted, thereby resulting in a sponsor having "reserved area 207." *See id.* The description of Figure 2 further states that, "[i]n response to receiving the target location

⁶ This description is the second sentence after the '094 application explains that Figure 2 illustrates "a target location other than a mobile device in a system 200." Ex. 1008, at 23 ¶ 29.

information 216 from object of interest 233, registered application 231 can send a request 213 to content delivery platform 212.” *Id.* at 24 ¶ 30. The ’094 application then states that request 213 may include, “but is not limited to,” certain information, such as “a request for content.” *Id.* As discussed above, however, the second sentence of the description of Figure 2 indicates that “the first sponsor” has already requested and reserved a geographic area of interest. Thus, not only does the ’094 application fail to reasonably convey to one of ordinary skill in the art that the Patent Owner possessed this limitation now at issue, the discussion of request 213 makes it clear that it would not make sense, in this context, that such request would include a request to reserve a geographic area of interest when the description assumes the reservation process has already occurred (because the user is located within a first sponsor’s *reserved* area 207).

We recognize that the ’094 application expressly states that a sponsor can provide an application program to a mobile device. Ex. 1008, at 20 ¶ 19. We also recognize that the ’094 application generally states that system 100 includes systems (without identifying which in particular) operating under the control of a sponsor. *Id.* at 20 ¶ 18. And, as discussed above, we recognize that an application program can send a request that is “not limited to” the items expressly identified. *Id.* at 24 ¶ 30. On the present record, however, we find that these general disclosures fail to reasonably convey to one of ordinary skill in the art that Patent Owner possessed an invention in which an application program requests to reserve a geographic area of interest. We also find, on the present record, the disclosures fail to reasonably convey to one of ordinary skill in the art that Patent Owner possessed an invention in which a sponsor requests to reserve

a geographic area of interest via an application program. And, for the reasons noted above, we further find, in light of the '094 application's description of Figure 2 and request 213, one of ordinary skill in the art would have understood that such a request would *not* be included with request 213 because the geographic area of interest has already been reserved when request 213 is made.

c. Summary

In view of the foregoing, we determine that the challenged claims of the '418 patent are not entitled to the priority date of the '094 application, and, therefore, Hardin '665 qualifies as prior art with respect to the '418 patent.

2. On the Same Mobile Device

As noted above, Petitioner asserts that a second limitation of the challenged claims also lacks written description support in the '094 application. In particular, Petitioner points to the following recitation of claim 11: “***implementing, on the mobile device***, at least one computer readable program instruction . . . for receiving, from a particular one application program . . . during the particular one application program's execution on the mobile device, a request to reserve . . . at least one designated geographic area of interest.” Pet. 24 (quoting Ex. 1001, claim 11) (emphasis added by Petitioner). Petitioner contends that this limitation means that “the reservation request must be received on the same mobile device as the application that sent it or, in other words, the content delivery platform must run on the same mobile device as the application

program making the reservation request.” *Id.* at 24–25 (citing Ex. 1003 ¶ 107). Petitioner asserts, however, that “the specification only discloses a system in which the content delivery platform is separate from the mobile device.” *Id.* at 25 (citing Ex. 1001, Figs. 1–3, 3:22–26, 11:38–41, 11:58–60, 12:4–13; Ex. 1003 ¶ 108). Petitioner argues that “[t]here is no disclosure of a system in which the content delivery platform runs on the mobile device,” and that, rather, “the specification explains that the content delivery platform must communicate with a mobile device via the internet or communication towers . . . and that the content delivery platform may register applications on multiple different mobile devices.” *Id.* (citing Ex. 1003 ¶¶ 107–114; Ex. 1001, Fig. 1, 3:44–4:4, 7:4–27, 9:62–10:11).

Patent Owner counters that Petitioner’s argument “is based on a false premise – that the specification does not support a claimed invention of a ‘content delivery platform’ on a mobile device receiving the request to reserve a geographic area of interest.” Prelim. Resp. 54. Patent Owner asserts that “[t]he fundamental flaw with this argument is that *none* of the [challenged claims] specify a ‘content delivery platform.’” *Id.* at 55. Patent Owner contends that “[b]ecause the claims do not require a ‘content delivery platform,’ Petitioner[’s] analysis – which asks whether the specification discloses an invention of a content delivery platform on a mobile device with the application program – is a red herring.” *Id.* at 57.

Additionally, Patent Owner asserts that “Petitioner[] likely avoided making the correct inquiry – is there written description support for the limitations of ‘at least one instruction’ or ‘at least one computer readable program instruction’ on the mobile device for receiving the request to reserve from an application program – because the answer is plainly yes.”

Prelim. Resp. 58 (citing Ex. 2001 ¶ 94). Patent Owner contends that the '094 application discloses that embodiments of the invention may be implemented in software or as computer-usable or computer-readable medium and that a mobile device may be considered a general computing device. *Id.* at 59 (citations omitted). Thus, Patent Owner asserts that one of ordinary skill in the art would have understood that the inventors were in possession of an invention “whereby computer-readable ‘instructions’ located on a mobile device may receive requests to reserve a geographic area of interest from application programs also running on the mobile device.” *Id.* (citing Ex. 2001 ¶¶ 93–94; Ex. 2006, 24–26).

First, we agree with Patent Owner that Petitioner appears to focus its discussion on the location of a content delivery platform that is not expressly recited in the claims. Second, assuming that Petitioner meant to focus on the language of the challenged claims referenced by Patent Owner, the limitation to which Petitioner directs its argument is tied, in some respects, to the same issue we addressed above regarding whether there is sufficient written description support for an application program sending a request to reserve a geographic area of interest. Because these arguments are somewhat connected and because we have already determined above, on the present record, that the '094 application fails to provide sufficient written description support for at least one limitation of the challenged claims, we need not determine, at this time, whether the '094 application also fails to provide sufficient written description support for this additional limitation of the challenged claims.

D. Obviousness over Hardin '665 and Salmre

Petitioner asserts that claims 11–18 of the '418 patent would have been obvious over Hardin '665 and Salmre. Pet. 27–69. Patent Owner does not challenge Petitioner's analysis aside from whether the '418 patent claims are entitled to the priority date of the '094 application, an issue we addressed above (*see supra* Part III.C.). *See generally* Prelim. Resp. For the reasons explained below, we determine that Petitioner has demonstrated a reasonable likelihood of prevailing on its asserted ground.

1. Legal Standards

The U.S. Supreme Court set forth the framework for applying the statutory language of 35 U.S.C. § 103 in *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966):

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.

The Supreme Court explained in *KSR International Co. v. Teleflex Inc.* that

[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (alteration in original))).

“Whether an ordinarily skilled artisan would have been motivated to modify the teachings of a reference is a question of fact.” *WBIP, LLC v. Kohler Co.*, 829 F.3d 1317, 1327 (Fed. Cir. 2016) (citations omitted). “[W]here a party argues a skilled artisan would have been motivated to combine references, it must show the artisan ‘would have had a reasonable expectation of success from doing so.’” *Arctic Cat Inc. v. Bombardier Recreational Prods. Inc.*, 876 F.3d 1350, 1360–61 (Fed. Cir. 2017) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1068–69 (Fed. Cir. 2012)).

2. Analysis

In evaluating Petitioner’s obviousness challenge, we consider the *Graham* factors.

a. Level of Ordinary Skill in the Art

The level of ordinary skill in the art at the time of the invention is discussed above. *See supra* Part III.A.

b. Scope and Content of the Prior Art

We provide an overview of the asserted prior art, namely, Hardin ’665 and Salmre.

i. Hardin '665

Hardin '665 is the pre-grant publication of the '094 application (*see* Ex. 1005), and, as noted by Petitioner, “has the same specification as the '418 patent challenged in this Petition.” Pet. 19. The '418 patent is summarized above. *See supra* Part II.B.

ii. Salmre

Salmre is directed to “a system and method for making it easier to develop and use location aware software applications,” by combining the separate “tasks of location information gathering, analysis, and display.” Ex. 1006 ¶ 2. Salmre discloses that a location manager receives location information and “abstract[s] the location information into location events that are provided to location aware application[s]” running on mobile phones. *Id.* ¶¶ 16, 52. In particular, Salmre discloses the following:

Mobile device 820 includes location aware application 822 that has been developed using the location aware programming environment (832). More than one location aware application may be included on device 820. Attached to mobile device 822 are N location sources (821(1-N)). These location sources, both on and off-device, as described above, provide location data to location application 822. Location store 824 includes location information that may be accessed by all of the location aware applications on device 820.

Id. ¶ 52.

Salmre explains that the location aware application “registers for location events based on the relation of the item to areas of interest,” and when a predefined location event occurs, including entering or leaving an area of interest, the location manager notifies the application, so that the application “executes an event driven code routine that was developed to

handle the location event.” Ex. 1006 ¶ 21. According to Salmre, the “area of interest is a predefined region that relates to a map” (*id.* ¶ 32) or a user may “select a point on the map and then provide a radius to extend from that point to be the area of interest” (*id.* ¶ 37).

c. Differences Between the Prior Art and the Claims

Petitioner sets forth a detailed analysis showing how the combined teachings of the references meet the elements of claims 11–18. Pet. 27–69. In particular, Petitioner relies on Hardin ’665 as teaching most of the limitations of the claims, but relies on Salmre to meet the claim limitations reciting application programs on mobile devices that can reserve geographic areas and a content delivery platform that can be implemented on the same mobile device as the application program. *Id.* at 28. Additionally, Petitioner contends that one of ordinary skill in the art would have been motivated to combine the teachings of Hardin ’665 and Salmre with a reasonable expectation of success. *Id.* at 64–69.

In its Preliminary Response, Patent Owner does not raise an argument responding to Petitioner’s challenge based on Hardin ’665 and Salmre aside from whether the ’418 patent claims are entitled to the priority date of the ’094 application, an issue we addressed above (*see supra* Part III.C.).

We have reviewed Petitioner’s uncontested argument and evidence regarding the teachings of Hardin ’665 and Salmre, and we find, for the reasons provided by Petitioner and on the preliminary record before us, that Petitioner has shown sufficiently that the combined teachings of Hardin ’665 and Salmre satisfy the limitations of the claims, and that one of ordinary skill in the art would have had a reason with rational underpinning to

combine the teachings as proposed by Petitioner with a reasonable expectation of success.

d. Objective Considerations of Nonobviousness

Neither party presents evidence of objective considerations of nonobviousness at this stage of the proceeding.

e. Weighing the Graham Factors

“Once all relevant facts are found, the ultimate legal determination [of obviousness] involves the weighing of the fact findings to conclude whether the claimed combination would have been obvious to an ordinary artisan.” *Arctic Cat*, 876 F.3d at 1361. On balance, considering the record presently before us, Petitioner has established a reasonable likelihood that it would prevail in showing that the combination of Hardin ’665 and Salmre would have rendered the subject matter of claims 11–18 of the ’418 patent obvious to one of ordinary skill in the art at the time of the invention.

3. Summary

In view of the foregoing, we determine that Petitioner has demonstrated a reasonable likelihood of showing that claims 11–18 would have been obvious over Hardin ’665 and Salmre.

E. Discretion Under 35 U.S.C. § 314(a)

Patent Owner contends that we should exercise our discretion to deny institution under 35 U.S.C. § 314(a). Prelim. Resp. 61. We consider

whether to exercise that discretion based on the parallel district court litigation as well as on the other petitions involving the '418 patent.

1. Parallel Litigation

In particular, Patent Owner contends that we should exercise our discretion to deny institution under 35 U.S.C. § 314(a) and *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential). Prelim. Resp. 61. Patent Owner analyzes the factors set forth in *Fintiv* in light of parallel district court litigation involving the '418 patent. *Id.* at 61–66. At the time the Preliminary Response was filed, Patent Owner asserts that Samsung⁷ had not offered a *Sotera*-type stipulation. *Id.* at 61–62 (citing Ex. 1032 (Samsung stipulation)).

We authorized Petitioner and Patent Owner to file a preliminary reply and preliminary sur-reply, respectively, on the issue of discretionary denial under 35 U.S.C. § 314(a) and *Fintiv*. With the Preliminary Reply, Samsung “provided a *Sotera* stipulation.” Prelim. Reply 1 (citing Ex. 1033 (Samsung “*Sotera* stipulation”)). The stipulation provides that if we institute trial in this case, Samsung “will not pursue, with respect to the '418 patent in Case No. 2:21-CV-00290-JRG, invalidity of the challenged claims based on any ground that Samsung raised in IPR2022-01331, or based on any ground that Samsung reasonably could have raised during IPR2022-01331.” Ex. 1033, 2.

Patent Owner counters that Samsung’s stipulation is “meaningless” due to “rare facts” present in this case. Prelim. Sur-reply 2, 2 n.1. Patent

⁷ Petitioner Google LLC is not a party to the parallel litigation. Prelim. Resp. 65; Prelim. Reply 1.

Owner contends that “the merits of the Petition turn on a written description challenge rather than traditional § 102/103 validity analyses.” *Id.* at 2.

Patent Owner further contends that Samsung’s “stipulation fails to address whether it will pursue the same written description challenge” in the district court litigation. *Id.* According to Patent Owner, nothing in Samsung’s “*Sotera* stipulation alleviates the Director’s underlying concerns – avoiding the risk of conflicting decisions between the Board and the district court and reducing litigation costs.” *Id.* at 3 (citing Ex. 1015, 1); *see also id.* at 5 (arguing that “Samsung’s *Sotera* stipulation is not determinative because the same fundamental issue (written description) will be decided by both the district court and the Board if trial here is instituted”).

The Director of the Patent Office recently set forth an interim procedure for discretionary denials in AIA post-grant proceedings with parallel district court litigation. *See* Ex. 1015 (Memorandum from Katherine Vidal, Dir. of U.S. Patent & Trademark Office, to Members of the Patent Trial & Appeal Board, U.S. Patent & Trademark Office (June 21, 2022)). In the Memorandum, the Director states that “[w]hen a petitioner stipulates not to pursue in a parallel district court proceeding the same grounds as in the petition or any grounds that could have reasonably been raised in the petition, it mitigates concerns of potentially conflicting decisions and duplicative efforts between district court and the PTAB.” *Id.* at 7. Further, when such a stipulation is provided, “the grounds the PTAB resolves will differ from those present in the parallel district court litigation” and “the PTAB will not discretionarily deny institution of an IPR.” *Id.*

In this case, Samsung provides a stipulation that falls within the contours of the Director’s Memorandum. *See* Ex. 1033, 2. In the district

court, Samsung apparently contends that the challenged claims are also invalid under 35 U.S.C. § 112(a) for lack of written description support or enablement. *See* Ex. 2007, 3 (Opening Expert Report). Our authority in this proceeding extends only to grounds “that could be raised under section 102 or 103.” 35 U.S.C. § 311(b). Section 311(b) does not expressly identify 35 U.S.C. § 112. We recognize that, because of the specific facts of this case, we may address written description issues that are closely intertwined with those presented to the district court. As discussed above, however, the written description issues in this proceeding relate to priority of the challenged claims, not unpatentability under § 112(a). Petitioner does not assert a ground of unpatentability under § 112(a) in this proceeding; rather, as discussed above, Petitioner presents a single ground of unpatentability under § 103 in this IPR. Thus, Samsung’s stipulation meets the requirements of a stipulation pursuant to *Sotera*, and, therefore, the Director’s Memorandum setting forth the interim procedure governs our determination here.

For the foregoing reasons, in accordance with the Director’s Memorandum, we do not exercise our discretion to deny institution under 35 U.S.C. § 314(a) due to the parallel district court litigation.

2. Multiple Petitions

As discussed above, Petitioner filed three petitions on the same day in IPR2022-01330, IPR2022-01331 (this proceeding), and IPR2022-01332, each petition challenging different claim sets of the ’418 patent. Pet. 73. Pursuant to the Board’s Consolidated Trial Practice Guide, Petitioner’s Notice Ranking Petitions and Explaining Material Differences Between

Petitions provides a ranking of the three petitions in the order in which Petitioner wishes the Board to consider the merits as well as an explanation of the differences between the petitions. Notice 2–4; PTAB Consolidated Trial Practice Guide, 59–60 (Nov. 2019) (“CTPG”).⁸ In IPR2022-01330, Petitioner challenges claims 1–10. Notice 2. In IPR2022-01331, which is this proceeding, Petitioner challenges claims 11–18. *Id.* In IPR2022-01332, Petitioner challenges claims 19–25. *Id.* Petitioner ranks the Petition in this proceeding as “A,” the petition in IPR2022-01332 as “B,” and the petition in IPR2022-01330 as “C.” *Id.* Petitioner, however, contends that all three petitions “are necessary because there was no practicable way to fit the challenges in a single petition containing less than 14,000 words.” *Id.*

Patent Owner responds that “at most only one petition should be instituted.” Notice Resp. 1. Patent Owner does not object to the order in which Petitioner ranks the petitions for consideration on the merits. *See generally id.*

Because Petitioner ranked this Petition first, and Patent Owner does not object, we decline to exercise our discretion to deny institution under 35 U.S.C. § 314(a) in this proceeding. Specifically, for the reasons explained above, we determine that Petitioner has met its burden under § 314(a) in the instant proceeding as to its challenge of at least one claim of the ’418 patent. In the absence of a persuasive reason to exercise discretion to deny, we find it appropriate to institute an *inter partes* review of all claims challenged in the Petition based on the sole ground presented.

⁸ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

We address, in separate decisions, Petitioner's second-ranked petition in IPR2022-01332 and third-ranked petition in IPR2022-01330.

F. Discretion Under 35 U.S.C. § 325(d)

Patent Owner also contends that we should deny institution under 35 U.S.C. § 325(d) because “the ‘same or substantially the same arguments’ that are in the Petition[] – whether there is written description support for the two limitations in question – were before the PTO.” Prelim. Resp. 34, 38. Petitioner does not address § 325(d) in the Petition and did not seek authorization to address this issue in its Preliminary Reply. We have discretion to deny review when the same or substantially the same arguments were previously before the Patent Office. 35 U.S.C. § 325(d). For the reasons explained below, we decline to exercise our discretion to deny institution.

Institution of an *inter partes* review is discretionary. *See Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). The Patent Office may, for example, deny institution under § 325(d), which provides that, “[i]n determining whether to institute . . . , the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d). When evaluating whether to exercise that discretion on behalf of the Director, we are guided by the Board's precedential decision in *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 7 (PTAB Feb. 13, 2020) (precedential).

Under *Advanced Bionics*, we address § 325(d) matters applying a two-part framework: (1) determining whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office; and (2) if either condition of the first part of the framework is satisfied, determining whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims. *Advanced Bionics*, Paper 6 at 8.

In applying the two-part framework, we consider several non-exclusive factors, including:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which the petitioner relies on the prior art or the patent owner distinguishes the prior art;
- (e) whether the petitioner has pointed out sufficiently how the examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson & Co. v. B. Braun Melsungen AG, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph).

Factors (a), (b), and (d) of the *Becton, Dickinson* factors relate to whether the art or arguments presented in the petition are the same or

substantially the same as those previously presented to the Office. *Advanced Bionics*, Paper 6 at 10. Factors (c), (e), and (f) “relate to whether the petitioner has demonstrated a material error by the Office” in its prior consideration of that art or arguments. *Id.* Only if the same or substantially the same art or arguments were previously presented to the Office do we then consider whether the petitioner has demonstrated a material error by the Office. *Id.* “At bottom, this framework reflects a commitment to defer to previous Office evaluations of the evidence of record unless material error is shown.” *Id.* at 9.

As noted above, Patent Owner argues that Petitioner asserts the same or substantially the same arguments regarding written description support previously before the Patent Office. Prelim. Resp. 34, 38. Patent Owner does not argue that Petitioner asserts the same or substantially the same art previously before the Patent Office. Thus, we limit our analysis to whether the same or substantially the same arguments in the Petition were previously before the Patent Office.

We start with an overview of the relevant prosecution history.

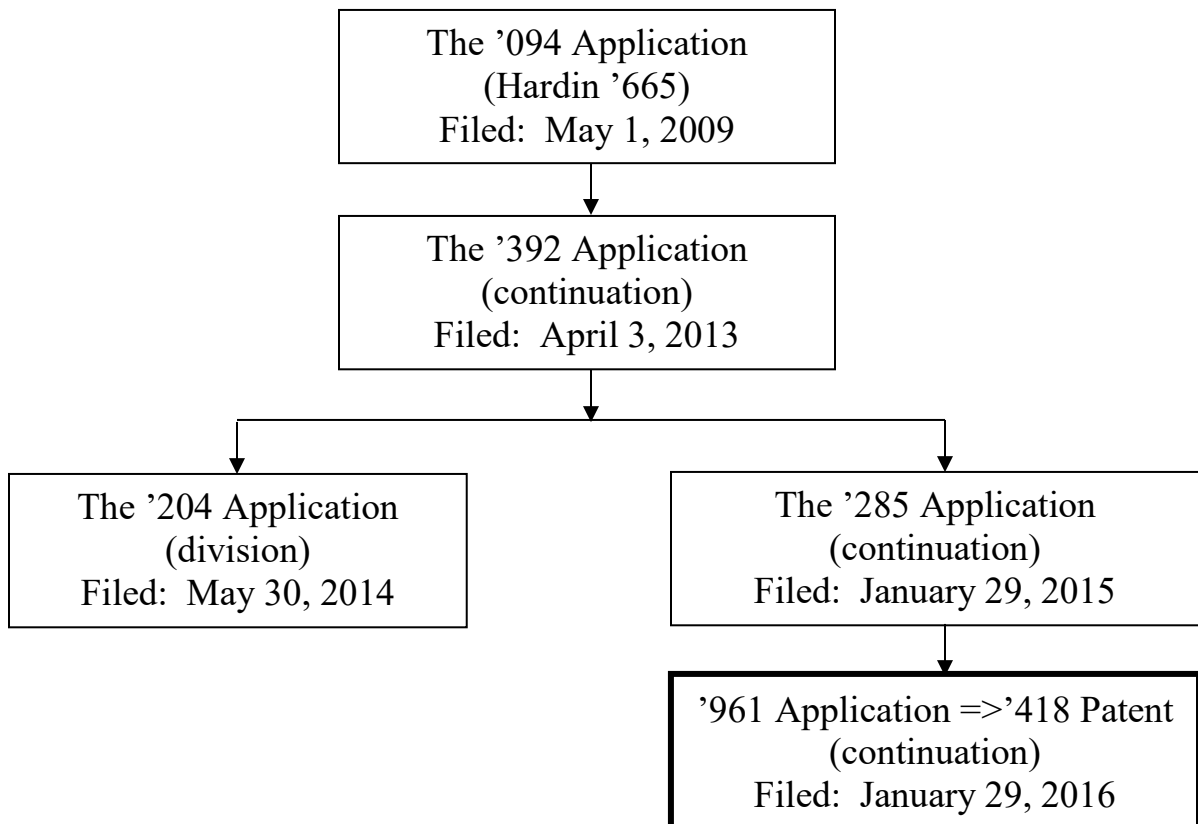
1. Relevant Prosecution History

As noted above, through a chain of continuation applications, the ’961 application (which issued as the ’418 patent) claims priority to the ’094 application (which published as Hardin ’665). Ex. 1001, 1:7–22; Ex. 1005, code (21). Specifically, the ’961 application claims priority to the ’285 application, which was filed on January 29, 2015. Ex. 1001, 1:7–22. The ’285 application claims priority to the ’392 application, which was filed

on April 3, 2013. *Id.* The '392 application claims priority to the '094 application, which was filed on May 1, 2009. *Id.*

Although not a part of the chain of continuation applications, the '204 application, which was filed on May 30, 2014, is related to the '418 patent through its priority claim to the '392 application as a divisional application. Ex. 1013, code (60) (pre-grant publication of the '204 application).

To illustrate, we provide a chart showing the '418 patent's claimed priority chain.



The '418 patent and the claimed priority applications all share the same specification. *See* Pet. 3 (citing Ex. 1001 ('418 patent); Ex. 1007 (U.S. Patent No. 8,433,296, which issued from the '094 application); Ex. 1009 (U.S. Patent No. 8,977,247, which issued from the '392 application);

Ex. 1011 (U.S. Patent No. 9,286,625, which issued from the '285 application)).

Patent Owner's argument that we should discretionarily deny institution is based on its position that at least two Examiners have considered whether the '094 application provides written description support for two claim limitations, namely, "(1) an application program requesting to reserve a geographic area of interest; and (2) the application program making the request to a module/program instructions where both are located on a mobile device." Prelim. Resp. 36; *see also* Pet. 22, 24–25; Ex. 1001, 19:1–10 (claim 11). As support, Patent Owner relies on the prosecution history files of the '392 application (Ex. 1010) and the application for the '418 patent, namely, the '961 application (Ex. 1002). Prelim. Resp. 36–38. We discuss relevant portions of the prosecution histories for these two applications in turn.

a. Prosecution History of the '392 Application

During prosecution of the '392 application, the Examiner rejected the claims under 35 U.S.C. § 112 as "indefinite" because "[t]he claim mentions the limitation 'after it is determined that a target location has entered the designated geographic area,'" and the Examiner found it "unclear how a location which [is at] a fix[ed] point in time can enter an area since a location is something that its unable to move since it's a description of fix[ed] points or places." Ex. 1010, 181.

The Examiner also applied a double patenting rejection to the claims over claims 1, 6, and 11 of U.S. Patent No. 8,433,296 (which issued from the '094 application, which published as Hardin '665). Ex. 1010, 183. The

Examiner stated that “the only difference” between U.S. Patent No. 8,433,296 and the ’392 application “is that the application program type on [the ’392 application] is associated with a navigation system which it’s not specified on claim 1 on [U.S. Patent No. 8,433,296] even though the application itself receives location information which should be associated with some kind of location identification system but it’s not mentioned o [sic] the claim.” *Id.* at 189. The Examiner further stated,

Additionally the fact that the registered application program as a sponsor to supply the interest for a region. It would have been an obvious matter of design choice to let a registered application program be a sponsor, since applicant has not disclosed that receiving, from the one or more of the registered application programs, at least one request to obtain an interest in a designated geographic area solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any well-known advertiser registering system.

Id.

In response, Patent Owner filed a terminal disclaimer to overcome the double patenting rejection. Ex. 1010, 201–202, 217. Regarding the § 112 rejection, Patent Owner amended the claims to recite “object of interest” instead of “target location.” *Id.* at 209, 212, 214, 217.

Following Patent Owner’s filing of the terminal disclaimer and claim amendments, the Examiner allowed the claims. Ex. 1010, 227–230. In a statement of reasons for allowance, the Examiner explained,

The claims are allowable . . . because none of the references in record . . . discloses or renders obvious the combination of elements as claimed (Emphasis added) : A method comprising: **registering a plurality of application programs for use with a content delivery platform**, wherein the plurality of registered application programs are each associated for use with a navigation system; **establishing a plurality of perimeters**

defining a plurality of geographic areas; receiving, from the one or more of the registered application programs, at least one request to **obtain an interest in a designated geographic area;** **determining if the interest in the designated geographic area is to be provided to at least one of the one or more registered application programs;** in response to determining that the interest in the designated geographic area is to be provided to at least one of the one or more registered application programs, reserving content delivery to one or more of the registered application programs to being from one or more sponsors after it is determined that an object of interest has entered the designated geographic area; **receiving, from the one or more sponsors, content to be delivered to at least one of the one or more registered application programs in response to said reserving;** and providing, after it is determined that the object of interest has entered the designated geographic area, at least a portion of the content selected from the one or more sponsors to at least one of the one or more registered application programs.

Id. at 228–229.

b. Prosecution History of the '961 Application

During prosecution of the '961 application (which issued as the '418 patent), the Examiner rejected the claims under 35 U.S.C. § 112 for “failing to comply with the written description requirement.” Ex. 1002, 130. The Examiner found several claim limitations “not taught or suggested in the applicants’ specification,” including “providing an electronic data processing method,”⁹ “receiving, on the mobile device via a first call to the electronic data processing method, . . . a first request,” and “determining if the reservation for the first particular designated geographic area of interest

⁹ We note that the Examiner incorrectly quoted the claim language, which instead recites “providing, on a mobile device, an electronic data processing method.” See Ex. 1002, 86.

is to be granted to the first particular sponsoring application program.” *Id.* at 130. The Examiner stated that “the applicants’ specification fails to mention or suggest providing an electronic data processing method on a mobile device,” and that “[t]here is also no mention of any call, much less a first and second call, and granting of a request in the applicants’ specification.” *Id.* at 131.

In response, Patent Owner initiated a telephone interview with the Examiner. Ex. 1002, 164. During the interview, the Examiner “found applicant’s remarks regarding some of the claim limitations rejected under 35 USC 112(a) to be persuasive, and agreed that proposed amendments to other limitations in the independent claims will overcome the 35 USC 112(a) rejection of [independent] claims 21, 33, and 40.” *Id.* The Examiner also “agreed to review the amendments and/or remarks when a response is officially submitted.” *Id.*

Patent Owner subsequently submitted claim amendments to overcome the § 112 rejection. Ex. 1002, 166–202, 213. For the limitation “providing, on a mobile device, an electronic data processing method,” Patent Owner replaced the language with “implementing, on a mobile device, at least one computer readable program instruction.” *Id.* at 167. For the limitation “receiving, on the mobile device via a first call to the electronic data processing method, . . . a first request,” Patent Owner replaced the language with “using the at least one computer readable program instruction to receive, . . . a first request.” *Id.* at 168. For the limitation “determining if the reservation for the first particular designated geographic area of interest is to be granted to the first particular sponsoring application program,” Patent Owner replaced the language with “determining availability for the

first particular designated geographic area of interest to be reserved for the first particular application program.” *Id.* at 169.

Following Patent Owner’s submission of the claim amendments, the Examiner allowed the claims. Ex. 1002, 229–231. In a statement of reasons for allowance, the Examiner explained that the claims “are indicated allowable in view of the amendment to the claims and associated remarks.” *Id.* at 230.

2. Same or Substantially the Same Arguments

We now consider whether Petitioner asserts the same or substantially the same arguments that previously were presented to the Office. *See Advanced Bionics*, Paper 6 at 8.

As noted above in our discussion of the priority date for the challenged claims, Petitioner focuses on two claim limitations. The first limitation, “receiving, from a particular one application program . . . a request to reserve, for the particular one application program, at least one designated geographic area of interest,” is recited in independent claim 11. Pet. 22 (citing Ex. 1001, claim 11). Petitioner argues that this limitation “require[s] the application program to make the request to reserve a geographic area of interest,” but that the shared specification of the ’418 patent and the claimed priority applications “neither discloses a system in which an application program—or any entity other than a sponsor—can send a reservation request, nor suggests that an application program could be a sponsor, nor suggests that a sponsor can be on the mobile device.” *Id.* at 22–23.

The second limitation, “implementing, on the mobile device, at least one computer readable program instruction . . . for receiving, from a particular one application program . . . during the particular one application program’s execution on the mobile device, a request to reserve . . . at least one designated geographic area of interest,” is recited in claim 11 as well. Pet. 24 (citing Ex. 1001, claim 11). Petitioner asserts that claim 11’s “reservation request must be received on the same mobile device as the application that sent it or, in other words, the content delivery platform must run on the same mobile device as the application program making the reservation request.” *Id.* at 24–25. Petitioner argues that the shared specification of the ’418 patent and the claimed priority applications, however, “only discloses a system in which the content delivery platform is separate from the mobile device.” *Id.* at 25.

Starting with the prosecution history of the ’392 application, Patent Owner contends that the Examiner “specifically called out the first limitation in both a double-patenting rejection and a Notice of Allowance.” Prelim. Resp. 36–37 (citing Ex. 1010, 183–189, 228–229). With respect to the double patenting rejection, Patent Owner asserts that the Examiner “highlight[ed] . . . the limitation that the application program requests to reserve a geographic area and not[ed] that a difference between the pending claims and the inventors’ [prior patent] was ‘the fact that the registered application program [acts] as a sponsor to supply the interest for a region.’” *Id.* (citing Ex. 1010, 183–189). With respect to the Notice of Allowance, Patent Owner asserts that the Examiner “stat[ed] . . . that the prior art of record did not disclose ‘receiving, from the one or more of the registered application programs, at least one request to obtain an interest in a

designated geographic area.” *Id.* at 37 (citing Ex. 1010, 228–229). Patent Owner adds that the Examiner also applied a § 112 rejection for indefiniteness, and further notes that the Examiner “did not reject the claims having the ‘application program requesting to reserve a geographic area of interest’ as lacking written description support.” *Id.* (citing Ex. 1010, 181). Patent Owner argues that “[t]he only reasonable conclusion from this record is that [the Examiner] considered whether the claims complied with the written description requirement, and concluded that they did.” *Id.*

We disagree with Patent Owner. Although the Examiner’s double patenting rejection and reasons for allowance may have “called out” the limitation of the ’392 application claims requiring the application program to make the request to reserve a geographic area of interest, as Patent Owner contends, they do not demonstrate that the Examiner considered whether the limitation finds adequate support in the written description. Ex. 1010, 189, 229 (cited by Prelim. Resp. 36–37). In the double patenting rejection, the Examiner compared the claims of the ’392 application with the claims of the prior patent, finding differences including “the fact that the registered application program as a sponsor to supply the interest for a region.” Ex. 1010, 183–189. In the statement of reasons for allowance, the Examiner compared the claims of the ’392 application with the “prior art on record,” finding that “none of the references in record either alone inherently or in combination discloses or renders obvious the combination of elements as claimed.” *Id.* at 228. As to the § 112 rejection, the Examiner found a claim limitation (not at issue here) of the ’392 application to be “unclear.” *Id.* at 181. None of these cited instances in the prosecution history of the ’392 application shows that the Examiner considered whether there is

adequate written description support for the specific aspect of the claims requiring that the application program make the request to reserve a geographic area of interest.

Turning next to the prosecution history of the '961 application (which issued as the '418 patent), Patent Owner contends that the Examiner “rejected pending claims on several grounds – including a § 112, ¶ 1 written description rejection that addressed the very limitations that form the basis of the Petition[.]” Prelim. Resp. 37 (citing Ex. 1002, 129–133; Prelim. Resp. 28–30). As support, Patent Owner points us to where the Examiner identified various limitations failing to comply with the written description requirement, including the limitations “providing an electronic data processing method,” “receiving, on the mobile device via a first call to the electronic data processing method, . . . a first request,” and “determining if the reservation for the first particular designated geographic area of interest is to be granted to the first particular sponsoring application program.” *Id.* at 29–30 (citing Ex. 1002, 130–131). To provide context for these limitations, Patent Owner includes a table of “the relevant then-pending claim language and [the Examiner’s] identification of terms allegedly lacking written description support,” which is reproduced below. *Id.* at 28–30.

Pending Claim Language	Examiner Akonai's Written Description Rejection
From representative independent claim 21 (EX-1002 at 086-087):	"[The pending independent claims] recite the following limitations which are not taught or suggested in the applicants' specification" (EX-1002 at 130-131):
"providing, on a mobile device, an electronic data processing method"	"... providing an electronic data processing method..."
"receiving, on the mobile device via a first call to the electronic data processing method, from a first particular application program during its execution on the mobile device, a first request for a reservation for a first particular designated geographic area of interest"	"...receiving, on the mobile device via a first call to the electronic data processing method, ... a first request"
"determining if the reservation for the first particular geographic area of interest is to be granted to the first	"... determining if the reservation for the first particular designated geographic area of interest is to be
particular sponsoring application program"	granted to the first particular sponsoring application program"

Patent Owner further points out that the Examiner "allowed the claims 'in view of the amendment to the claims and associated remarks'" filed by

Patent Owner following an interview. *Id.* at 37–38 (citing Ex. 1002, 164, 166–217, 230). According to Patent Owner “[t]his record . . . confirms that the ‘same or substantially the same arguments’ that are in the Petition[] – whether there is written description support for the two limitations in question – were before the PTO.” *Id.* at 38.

We disagree with Patent Owner. The claim limitations at issue in the Petition are, in Patent Owner’s words, “(1) an application program requesting to reserve a geographic area of interest; and (2) the application program making the request to a module/program instructions where both are located on a mobile device.” Prelim. Resp. 36. Patent Owner points to three “relevant” limitations identified in the § 112 rejection applied during prosecution. *Id.* at 29–30. For the first relevant limitation, “providing an electronic data processing method,” the Examiner stated that “the applicants’ specification fails to mention or suggest providing an electronic data processing method on a mobile device,” and that the “specification only discloses providing a registered application program to mobile devices by a developer platform.” Ex. 1002, 131. For the second and third relevant limitations, “receiving, on a mobile device via a first call to the electronic data processing method, . . . a first request,” and “determining if the reservation for the first particular designated geographic area of interest is to be granted to the first particular sponsoring application program,” the Examiner stated that “[t]here is also no mention of any call, much less a first and second call, and granting of a request in the applicants’ specification.” *Id.* That is, for these three limitations, the Examiner focused on whether there is adequate written description support for an electronic data

processing method, a first call, and a granting of a request. The Examiner did not address the limitations at issue in the Petition.

We note Patent Owner’s emphasis on the Examiner’s statement in the § 112 rejection that the specification “fails to mention or suggest providing an electronic data processing method *on a mobile device*.” Prelim. Resp. 30 (citing Ex. 1002, 130–131). Such emphasis, however, is unavailing. The Examiner’s statement demonstrates that the Examiner considered whether the specification discloses an *electronic data processing method* on a mobile device; it does not show that the Examiner considered whether the specification discloses an application program requesting to reserve a geographic area of interest, or whether the specification discloses the *application program* making the request to a *module/program instructions* where *both* are located on a mobile device. Indeed, Patent Owner responded to the § 112 rejection by amending the claims to delete references to “electronic data processing method,” “first call,” and “granted.” *E.g.*, Ex. 1002, 167–169; *see also* Prelim. Resp. 31 (describing “amending the claims (including changing ‘electronic data processing method’ to ‘at least one computer readable program instruction’)”). Thus, contrary to Patent Owner’s position, the recited language of the claims rejected under § 112 during prosecution is different than the recited language of the challenged claims. *See* Prelim. Resp. 30 (“Petitioner[] gloss[es] over [the Examiner’s] work . . . and fail[s] to point out that [the Examiner] issued a **written description** rejection directed to the **same** limitations highlighted in the Petition[.]”).

For the reasons given, we determine that the arguments presented in the Petition are not the same or substantially the same arguments previously

before the Patent Office. We therefore do not proceed to the second part of the *Advanced Bionics* framework. *See Advanced Bionics*, Paper 6 at 8.

3. *Summary*

In view of the foregoing, we decline to exercise our discretion under 35 U.S.C. § 325(d) to deny institution.

IV. CONCLUSION

For the foregoing reasons, Petitioner has demonstrated on the record before us a reasonable likelihood that it will prevail in showing that at least one claim of the '418 patent is unpatentable. We have not, however, made a final determination with respect to the patentability of these claims.

V. ORDER

For the reasons given, it is

ORDERED that *inter partes* review is instituted as to all the challenged claims of the '418 patent based on the sole ground presented in the Petition, namely, obviousness under 35 U.S.C. § 103 of claims 11–18 over Hardin '665 and Salmre; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial; the trial will commence on the entry date of this Decision.

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