

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,

Petitioner,

v.

AVANT LOCATION TECHNOLOGIES LLC,

Patent Owner.

Patent No. 9,042,910

Filing Date: April 11, 2014

Issue Date: May 26, 2015

Inventor: Carlos Alberto Perez Lafuente

Title: METHOD AND SYSTEM FOR MONITORING A MOBILE STATION
PRESENCE IN A SPECIAL AREA

PATENT OWNER'S PRELIMINARY RESPONSE

Case No. IPR2025-01261

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A. The Petition Does Not Show That Any Combination of Kraufvelin, Hashimoto, and Andersson Discloses “ <i>determining in the mobile station, based on a previously obtained at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,</i> ” as Required by Claim [1.2], “ <i>determining in the mobile station, based on a previously obtained at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,</i> ” as Required by Claim [5.2], “ <i>a processor adapted to process the first and second distinctive defining signals to determine, based on at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,</i> ” as Required by Claim [7.2], “ <i>receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the first data, whether the one or more defining signals are one or more first distinctive defining signals and to determine whether or not the mobile station is present in the first special area, receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the second data, whether the one or more defining signals are one or more second distinctive defining signals and to determine whether or not the mobile station is present in the second special area</i> ” as Required by Claims [9.1]-[9.2], and “ <i>receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the first data, whether the one or more defining signals are one or more first</i>	

distinctive defining signals and to determine whether or not the mobile station is present in the first special area, receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the second data, whether the one or more defining signals are one or more second distinctive defining signals and to determine whether or not the mobile station is present in the second special area,” as Required by Claims [12.1]-[12.2]8

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LIST OF EXHIBITS

Exhibit No.	Description of Document
2001	Third Amended Docket Control Order (Dkt. 27), <i>Avant Location Techs. LLC v. Ecobee Techs. ULC d/b/a ecobee</i> , Case No. 2:23-cv-00354-JRG-RSP (E.D. Tex. October 17, 2025)
2002	Complaint (Dkt. 1), <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 2:24-cv-0757-JRG (E.D. Tex. Sept. 13, 2024)
2003	Complaint (Dkt. 1), <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 7-25-cv-00445-ADA (W.D. Tex. Oct. 1, 2025)
2004	<i>Ecobee Techs. ULC's Invalidity</i> and Subject Matter Eligibility Contentions in <i>Avant Location Techs. LLC v. Ecobee Techs. ULC d/b/a ecobee</i> , Case No. 2:23-cv-00354-JRG-RSP (E.D. Tex.), dated March 14, 2025
2005	Apple Inc.'s First Amended Invalidity and Patent-Eligibility Contentions in <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 2:24-cv-0757-JRG (E.D. Tex.), dated July 14, 2025
2006	Email Correspondence between Julian Pymto (Counsel for Patent Owner in the EDTX Apple Litigation / WDTX Apple Litigation) and Andrew Danford (Counsel for Petitioner in the EDTX Apple Litigation / WDTX Apple Litigation)
2007	First Amended Complaint (Dkt. 1), <i>Avant Location Techs. LLC v. Apple., Inc.</i> , Case No. 7-25-cv-00445-ADA (W.D. Tex. Nov. 14, 2025)
2008	Joint Claim Construction Chart Under 4-5(d), Dkt. 30, <i>Avant Location Techs. LLC v. Ecobee Techs. ULC d/b/a ecobee</i> , Case No. 2:23-cv-00354-JRG-RSP (E.D. Tex.), filed October 31, 2025

I. INTRODUCTION

On September 11, 2025, Apple Inc. (“Petitioner” or “Apple”) submitted a Petition (Paper 2, “Petition” or “Pet.”) to institute *inter partes* review (“IPR”) of U.S. Patent No. 9,042,910 (Ex. 1001, the “910 Patent”), challenging Claims 1-14 (the “Challenged Claims”). The Petition asserts that (i) Claims 1-2 and 4-8 are rendered obvious over U.S. Patent Application Publication No. US 2006/0135174 (Ex. 1006 or “Kraufvelin”) and U.S. Patent Application Publication No. US 2005/0070283 (Ex. 1008 or “Hashimoto”); (ii) Claim 3 is rendered obvious over Kraufvelin, Hashimoto, and U.S. Patent Application Publication No. US 2004/0203863 (Ex. 1016, “Huomo”); and (iii) Claims 9-14 are rendered obvious over Kraufvelin, Hashimoto, and U.S. Patent No. 6,230,017 (Ex. 1007 or “Andersson”). Pet. at 9. The Board should deny the Petition for at least the reasons described briefly below.

Petitioner fails to show that any combination of Kraufvelin, Hashimoto, and Andersson discloses at least “determining in the mobile station, based on a previously obtained at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,” as Required by Claim [1.2], “determining in the mobile station, based on a previously obtained at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,” as Required by Claim [5.2], “a processor adapted to process the first and second distinctive defining signals to determine,

based on at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,” as Required by Claim [7.2], “receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the first data, whether the one or more defining signals are one or more first distinctive defining signals and to determine whether or not the mobile station is present in the first special area, receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the second data, whether the one or more defining signals are one or more second distinctive defining signals and to determine whether or not the mobile station is present in the second special area” as Required by Claims [9.1]-[9.2], and “receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the first data, whether the one or more defining signals are one or more first distinctive defining signals and to determine whether or not the mobile station is present in the first special area, receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the second data, whether the one or more defining signals are one or more second distinctive defining signals and to determine whether or not the mobile station is present in the second special area,” as Required by Claims [12.1]-[12.2].

The Petition is deficient because Petitioner ignores that the aforementioned claims require that the mobile station itself determine its presence in one or more special areas. However, the Kraufvelin reference, which Petitioner relies on, only discloses that a separate client (i.e., not the mobile station being monitored) performs the determination of whether the mobile station is within a special area based on processing done by the network.

Accordingly, the Board should deny institution of the Petition

II. CLAIM CONSTRUCTION

Petitioner’s assertion that “[c]laim terms in IPRs are construed according to their ‘ordinary and customary meaning’ to those of skill in the art” (Pet. at 9) contradicts its positions in *Avant Location Techs. LLC v. Apple Inc.*, Case No. 2:24-cv-00757-JRG (E.D. Tex.) (the “District Court Litigation”). In the District Court Litigation, Petitioner agreed to the following constructions, which Patent Owner ultimately also agreed to:

Claim Term	Claims	Proposed Construction
“special area”	’910 Patent: Claims 1-2, 5, 7, and 9-14	“area within the coverage of at least one distinctive defining signal”
“radio communication defining device” / “radio communication defining devices”	’910 Patent: Claims 1, 5, 7, and 9	“device capable of at least wirelessly transmitting radio distinctive defining signals that by their coverage define a special area”
“mobile station”	’910 Patent: Claims 1-2, and 4-14	“a mobile device such as a mobile phone or PDA”

Claim Term	Claims	Proposed Construction
“presence related services”	’910 Patent: Claims 1, 4-9, and 12	“services provided to a mobile station depending on its presence in a special area”

Ex. 2008.¹ The Petition does not assume that the plain and ordinary meaning of these terms is as limited as the parties’ agreed-upon constructions, and the Petition’s analysis of the claim limitations containing these terms against the cited references does not indicate that those references disclose the claim terms under Petitioner’s agreed constructions in the District Court Litigation.

If Petitioner believed that any claim terms required construction, it had a duty to identify “[h]ow the challenged claim is to be construed” in its Petition. 37 C.F.R. § 42.104(3); *see also* Patent Trial and Appeal Board Consolidated Trial Practice Guide, November 2019, at 48 (“The Board, in its claim construction determinations, will consider statements regarding claim construction made by patent owners and by a petitioner filed in other proceedings, if the statements are timely made of record.”) (citations omitted). Instead, Petitioner chose to apply the plain and ordinary meaning in this proceeding while agreeing to narrower constructions in the District Court

¹ While filed after Apple Inc. was deconsolidated from the case, the positions therein were jointly held by Defendants Apple Inc. and Ecobee Technologies ULC d/b/a ecobee.

Litigation. Therefore, the parties' agreed-upon constructions in the District Court Litigation should be applied in this proceeding. Patent Trial and Appeal Board Consolidated Trial Practice Guide, at 47 (citations omitted) ("Parties should submit a prior claim construction determination by a federal court or the ITC in an AIA proceeding as soon as that determination becomes available. Preferably, the prior claim construction determination should be submitted with the petition, preliminary response, or response, along with explanations. Submission of a prior claim construction determination is mandatory under 37 C.F.R. § 42.51(b), if it is 'relevant information that is inconsistent with a position advanced by the party during the proceeding.'").

III. LEVEL OF ORDINARY SKILL IN THE ART

For the purposes of this Preliminary Response only, Patent Owner applies Petitioner's definition of a POSITA. Pet. at 8-9.

IV. PETITIONER HAS NOT DEMONSTRATED A REASONABLE LIKELIHOOD OF SUCCESS FOR THE GROUNDS ADVANCED IN THE PETITION, AND THE PETITION SHOULD BE DENIED

The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) so-called secondary considerations where in evidence. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966); *KSR Int'l Co. v. Teleflex*

Inc., 550 U.S. 398, 406 (2007). The question is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983).

The Board has held that a failure to identify the differences between the claimed subject matter and the prior art is fatal to an obviousness challenge. *See, Apple, Inc. v. Contentguard Holdings, Inc.*, IPR2015-00355, Decision Denying Institution of *Inter Partes* Review, Paper 9 at 9-10 (P.T.A.B. June 26, 2015) (denying institution for failure to identify the differences between the claimed subject matter and the prior art).

In arriving at an obviousness determination, the Board must sufficiently explain and support the conclusions that the prior art references disclose all the elements recited in the Challenged Claims and a relevant, skilled artisan not only could have made, but would have been motivated to combine all the prior art references in the way the patent claims and reasonably expected success. *Pers. Web Techs., LLC v. Apple, Inc.*, 848 F.3d 987, 994 (Fed. Cir. 2017). That is, even if all the claim elements are found across a number of references, an obviousness determination must consider whether a person of ordinary skill in the art would have the motivation to combine those references. *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, 821 F.3d 1359, 1368 (Fed. Cir. 2016); *Los Angeles Biomedical*

Rsch. Inst. at Harbor-UCLA Med. Ctr. v. Eli Lilly & Co., 849 F.3d 1049, 1067 (Fed. Cir. 2017) (vacating and remanding an obviousness determination, in part, because the Board did not make factual finding as to whether there was an apparent reason to combine all three prior art references to achieve the claimed invention and whether a person of skill in the art would have had a reasonable expectation of success from such a combination). This combinability determination, as supported by an articulated motivation to combine, requires a plausible rationale as to why those prior art references would have worked together. *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1335 (Fed. Cir. 2013). Absent some articulated rationale, a “common sense” finding is no different than the conclusory statement “would have been obvious.” *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017). Of additional importance, “knowledge of a problem and motivation to solve it are entirely different from motivation to combine particular references” *Innogenetics, N.V. v. Abbott Lab’ys*, 512 F.3d 1363, 1373 (Fed. Cir. 2008).

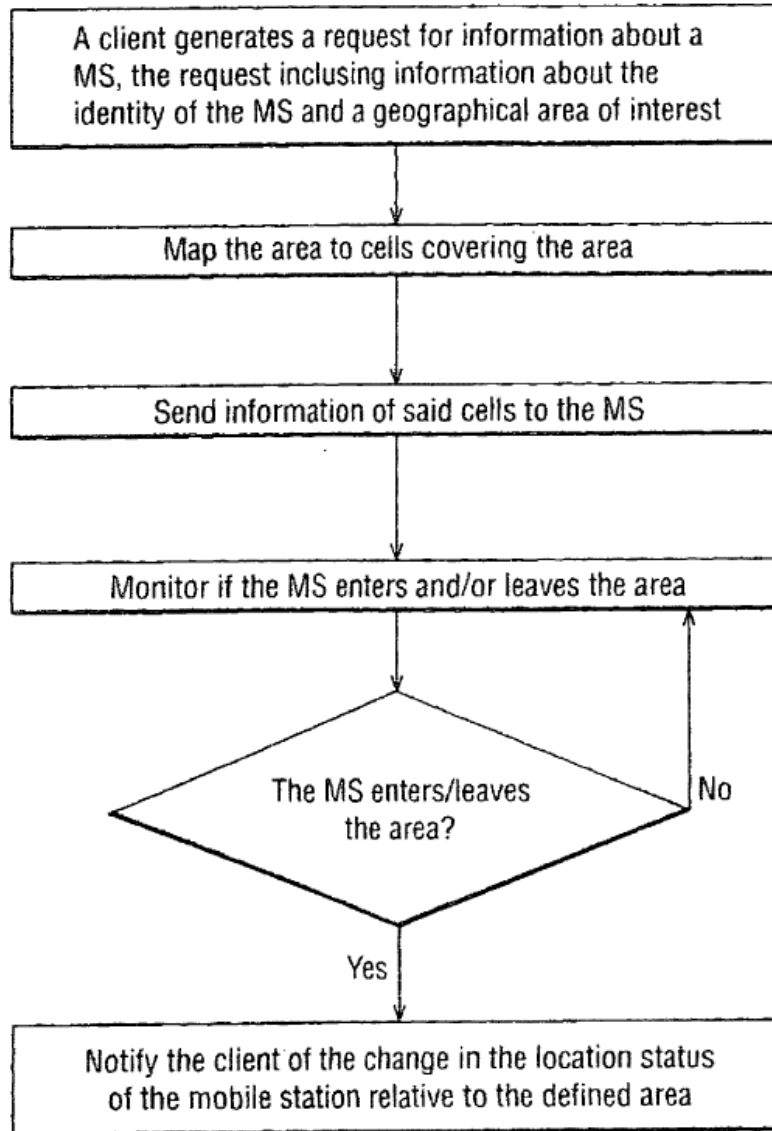
- A. **The Petition Does Not Show That Any Combination of Kraufvelin, Hashimoto, and Andersson Discloses “determining in the mobile station, based on a previously obtained at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,” as Required by Claim [1.2], “determining in the mobile station, based on a previously obtained at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,” as Required by Claim [5.2], “a processor adapted to process the first and second distinctive defining signals to determine, based on at least portion of one or both of the first and second data, whether or not the mobile station is present in the special area,” as Required by Claim [7.2], “receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the first data, whether the one or more defining signals are one or more first distinctive defining signals and to determine whether or not the mobile station is present in the first special area, receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the second data, whether the one or more defining signals are one or more second distinctive defining signals and to determine whether or not the mobile station is present in the second special area” as Required by Claims [9.1]-[9.2], and “receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the first data, whether the one or more defining signals are one or more first distinctive defining signals and to determine whether or not the mobile station is present in the first special area, receiving and processing one or more defining signals in the mobile station to determine, based on a previously obtained at least portion of the second data, whether the one or more defining signals are one or more second distinctive defining signals and to determine whether or not the mobile station is present in the second special area,” as Required by Claims [12.1]-[12.2]**

Claims 1, 5, 7, 9, and 12 of the '910 Patent all require that the mobile station itself determines whether or not the mobile station is present in one or more of the special areas.

Petitioner relies on Kraufvelin to disclose that a mobile station receives a cell ID from a base station that covers the area that the mobile station is currently in and compares that received cell ID to a list of cell IDs that the mobile station receives from the network. Pet. at 31-32 (citations omitted). If there is a match in the received cell ID and one of the cell IDs in the list, Petitioner notes that “[a]n area event LCS report **indicating a positive match** with the target cells, i.e. **the subscriber is ENTERing the area.**” Pet. at 31 (citing Ex. 1006, [0080]). However, Petitioner fails to disclose how the comparison alone allows the mobile station itself to determine whether it is present in one or more of the special areas. Kraufvelin is clear that it is actually a separate client (i.e., not the mobile station being monitored) that performs the determination of whether the mobile station is within a special area, i.e., that “the subscriber is ENTERing the area.” For example, Fig. 3 (displayed below) shows that the “client generates a request for information about a MS, the request inclu[d]ing information about the identity of the MS and a geographical area of interest” and the client “monitor[s] if the MS enters and/or leaves the area.” Ex. 1006, Fig. 3. The client is “notif[ied] . . . of the change in the location status of the mobile station relative to the defined area” in order to determine whether the mobile station (MS)

is present in the area of interest. *Id.*

Fig. 3



Ex. 1006, Fig. 3.

Elsewhere in its specification, Kraufvelin makes clear that the network (i.e., not the mobile station) signals information about whether the mobile station entered or left the area of interest and the mobile station merely passes a report to the network

about its location.

If there is match, the mobile station 1 sends a report back to the network. In FIG. 1 the message would be passed from the mobile station 1 to the GMLC 12. *The network then signals information to the client application 8 that the terminal has entered/left the area of interest.* The response may simply inform that the mobile station is now within the area, or is outside the area.

Id., [0060]-[0061] (emphasis added).

By conflating the claims' step of a "determining in the mobile station if the mobile station is receiving one or both of the first and second distinctive defining signals" (e.g., comparing the received cell ID with a list of cell IDs) with the separate step of "determining in the mobile station... whether or not the mobile station is present in [one or more of] the special area[s]," Petitioner effectively ignores this claim limitation and related claim limitations in Claims 5, 7, 9, and 12 and thus cannot show how the combination of Kraufvelin, Hashimoto, and Andersson disclose these claim limitations.

Because of this deficiency, institution should be denied.

B. Claims 2-4, 6, 8, 10-11, and 13-14 Are Not Obvious Over Any Combination of Kraufvelin, Hashimoto, Huomo, and Andersson

Claims 2-4 are dependent upon Claim 1, Claim 6 is dependent upon Claim 5, Claim 8 is dependent upon Claim 7, Claims 10-11 are dependent upon Claim 9, and Claims 13-14 are dependent upon Claim 12. Therefore, for at least the same reasons

as described for Claims 1, 5, 7, 9, and 12, the Petition fails to show how Claims 2-4, 6, 8, 10-11, and 13-14 are rendered obvious over any combination of Kraufvelin, Hashimoto, Huomo, and Andersson.

V. CONCLUSION

For the foregoing reasons, Patent Owner respectfully requests that the Board deny institution of the Petition in its entirety.

Respectfully submitted,

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CERTIFICATE OF WORD COUNT

The undersigned hereby certifies that the portions of the above-captioned PATENT OWNER'S PRELIMINARY RESPONSE specified in 37 C.F.R. § 42.24 has 2,586 words in compliance with the 14,000 word limit set forth in 37 C.F.R. § 42.24. This word count was prepared using Microsoft Word for Office 365.

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