

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FOURSQUARE LABS, INC.,
Petitioner,

v.

BOARDACTIVE CORPORATION,
Patent Owner.

IPR2023-00918
Patent 10,621,620 B2

Before JAMES A. TARTAL, MICHAEL L. WOODS, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SILVERMAN, *Administrative Patent Judge*.

JUDGMENT
Final Written Decision
Determining All Challenged Claims Unpatentable
35 U.S.C. § 318(a)

ORDER
Denying Patent Owner's Motion to Exclude
37 C.F.R. § 42.64(c)

I. INTRODUCTION

Petitioner, Foursquare Labs, Inc., filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–29 (“the Challenged Claims”) of U.S. Patent No. 10,621,620 B2 (Ex. 1001, “the ’620 patent”). *See* Pet. 1.

Patent Owner BoardActive Corporation (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”).

We issued a decision to institute an *inter partes* review of these claims. Paper 9 (“Institution Decision” or “Inst. Dec.”).

After institution, Patent Owner filed a Patent Owner Response (Paper 11, “PO Resp.”). Thereafter, Petitioner filed a Reply (Paper 12, “Reply” or “Pet. Reply”) and Patent Owner filed a Sur-reply (Paper 15, “Sur-reply” or “PO Sur-reply”).

Patent Owner filed a motion to exclude (Paper 19, “PO Mot.”), for which Petitioner filed an opposition (Paper 20, “Pet. Opp.”) and Patent Owner filed a Reply (Paper 22, “PO Mot. Reply”).

Oral argument was held on September 4, 2024, and a transcript of the hearing is included in the record. Paper 25 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6(b). Petitioner bears the burden of proving unpatentability of the Challenged Claims, and the burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). In order to prevail, as to a particular patent claim, Petitioner must establish unpatentability of the claim by a preponderance of the evidence. *See* 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d).

This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons below, we determine that Petitioner

has shown by a preponderance of the evidence that claims 1–29 of the ’620 patent are unpatentable.

A. Related Proceedings

The parties identify the following court proceeding relating to the ’620 patent: *BoardActive Corporation v. Foursquare Labs, Inc.*, Case No. 1:22-cv-00597 (D. Del.) (the “Related Litigation”). Pet. 68; Prelim. Resp. 2.

In addition, Patent Owner identifies *inter partes* review IPR2023-00919 (challenging U.S. Patent No. 10,692,108 B1). Prelim. Resp. 2.

B. Real Parties In Interest

Petitioner identifies itself, Foursquare Labs, Inc., as the real party-in-interest. Pet. 68. Patent Owner identifies itself, BoardActive Corporation, as the real party-in-interest. Prelim. Resp. 2.

C. The ’620 Patent (Ex. 1001)

The ’620 patent, which is titled “Platform for Location and Time Based Advertising,” relates to “an online platform for managing geolocation and time-based advertising and methods for managing and/or delivering location and time based advertisements.” Ex. 1001, 1:1–2; 1:21–24.

In one aspect, the ’620 patent discloses “media assets” that may be used to trigger the delivery of advertising content. *Id.* at 8:56–59. Such media assets may include “physical assets” (e.g., billboards and commercial centers) and “virtual assets” (e.g., virtual events and television networks). *Id.* at 8:63–9:5, *see also id.* at 13:8–11 (“In some instances, the geographic location does not need to correspond to a physical board and can be a purely digital signage (i.e. virtual signage).”)

The online platform may include an analytics layer that tracks and stores data about a consumer's behavior. Ex. 1001, 10:11–13. The geolocation of a mobile device may also be tracked. *Id.* at 13:39–43. The content to be distributed may be segmented into categories and tailored for delivery to consumers having particular profile characteristics. *Id.* at 9:64–66. In view of these features, the online platform may deliver content to particular consumers that are at particular geographic locations, such as near a billboard or a store. *Id.* at 10:59–62; *see also id.* at 11:37–39 (“[U]sers who drive by a geolocation may be ‘beaconed’ or provided with promotional content through . . . an [sic] mobile device application.”), 13:44–47 (“[T]he online platform may be configured to identify and retrieve advertisement content associated with real and/or virtual signage corresponding to the geolocation transmitted by the mobile device.”)

Additional features of the disclosed technology are represented in the claims and the discussion below.

D. Illustrative Claims

As noted previously, Petitioner challenges claims 1–29 of the '620 patent, of which claims 1, 28, and 29 are independent. Pet. 1; Ex. 1001, 37:46–40:61. Claims 1, 28, and 29, which illustrate the challenged subject matter, are reproduced below, with the addition (in brackets) of the designations provided in Petitioner's Appendix (*see* Pet. v–xii).

1. [preamble] A method comprising:
 - [1(a)] registering asset data, wherein registering the asset data comprises at least one of the following:
 - [1(a)(i)] registering a first geolocation associated with one of the following:
 - [1(a)(i)(1)] a physical asset, and

[1(a)(i)(2)] a virtual asset;

[1(b)] receiving media content to be associated with at least one registered asset, wherein the media content is configured to be operative with a content interaction layer and a consumer tracking layer to enable:

[1(b)(i)] interacting with a consumer of the media content in conjunction with, at least in part, the media content, and

[1(b)(ii)] tracking the consumer of the media content in conjunction with, at least in part, the media content;

[1(c)] specifying a plurality of rules for selecting the media content to deliver to the consumer, wherein specifying the plurality of rules comprises specifying:

[1(c)(i)] a first rule for delivering the media content, the first rule being associated with at least one element of profile data corresponding with the consumer, and

[1(c)(ii)] a second rule for updating the media content, the second rule being associated with a second geolocation;

[1(d)] receiving an activation command for triggering a delivery of the media content, wherein receiving the activation command comprises at least one of the following:

[1(d)(i)] determining that a spatial trigger has occurred,

[1(d)(ii)] determining that a time-based trigger has occurred, and

[1(d)(iii)] determining that an event has occurred,

[1(e)] comparing the first rule and the at least one element of profile data associated with the consumer in order to determine whether to deliver the media content to the consumer;

[1(f)] delivering the media content to a device associated with the consumer when the first rule is met;

[1(g)] tracking a location associated with the consumer further to the delivery of the media content;

[1(h)] comparing the second rule and the location in order to determine whether to update the media content; and

[1(i)] updating the media content at the device associated with the consumer when the second rule is met.

Ex. 1001, 37:46–38:22.

28. [Preamble] A method comprising:

[28(a)] registering asset data, wherein registering the asset data comprises at least one of the following:

[28(a)(i)] registering a first geolocation associated with one of the following:

[28(a)(i)(1)] a physical asset, and

[28(a)(i)(2)] a virtual asset;

[28(b)] receiving media content to be associated with at least one registered asset;

[28(c)] specifying a plurality of rules for delivering the media content, wherein specifying the plurality of rules comprises specifying:

[28(c)(i)] a first delivery rule associated with at least one element of profile data corresponding with a recipient of the media content, and

[28(c)(ii)] a second delivery rule associated with a second geolocation at which the recipient is tracked;

[28(d)] receiving an indication that the recipient is proximate to the first geolocation, comparing the first delivery rule and the at least one element of profile data associated with the recipient;

[28(e)] tracking a location associated with the recipient in response to a matching comparison;

[28(f)] comparing the second delivery rule and the location in order to determine whether the recipient is proximate to the second geolocation; and

[28(g)] delivering, upon fulfillment of the first delivery rule and the second delivery rule, the media content to the recipient.

Id. at 40:4–32.

29. [Preamble] A computer-readable medium comprising a set of instructions which when executed perform a method, the method comprising:

[29(a)] registering asset data, wherein registering the asset data comprises at least one of the following:

[29(a)(i)] registering a first geolocation associated with one of the following:

[29(a)(i)(1)] a physical asset, and

[29(a)(i)(2)] a virtual asset;

[29(b)] receiving media content to be associated with at least one registered asset;

[29(c)] specifying a plurality of rules for delivering the media content, wherein specifying the plurality of rules comprises specifying:

[29(c)(i)] a first delivery rule associated with a period of time, and

[29(c)(ii)] a second delivery rule associated with a second geolocation at which a recipient is tracked during the period of time;

[29(d)] receiving an indication that the recipient is proximate to the first geolocation;

[29(e)] tracking a location associated with the recipient in response to a matching comparison;

[29(f)] comparing the second delivery rule and the location in order to determine whether the recipient is proximate to the second geolocation; and

[29(g)] delivering, upon fulfillment of the first delivery rule and the second delivery rule, the media content to the recipient.

Id. at 40:33–61.

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability (for the Challenged Claims), based upon the identified prior art references and combinations thereof (Pet. 1–2):

Ground	Claims Challenged	35 U.S.C. §	Basis/Reference(s)
1	28, 29	102	Felt (Verizon) ¹
2	28, 29	103	Felt (Verizon), Kerr ² and/or Geer ³
3	1–6, 11–27	103	Felt (Verizon), Thaper (Cellco) ⁴
4	1–6, 11–27	103	Felt (Verizon), Muhire ⁵
5	1–6, 11–27	103	Felt (Verizon), Muhire, Kerr
6	7–10	103	Felt (Verizon), Kerr, Muhire, Sehn ⁶

¹ US 2015/0095124 A1, pub. Apr. 2, 2015 (Ex. 1004). Petitioner (*see* Pet. iv) identifies this reference by the name of the assignee identified thereon — “Verizon” — although the first named inventor is Felt. Ex. 1004, code (72). We identify this reference as “Felt (Verizon).”

² US 2016/0309292 A1, pub. Oct. 20, 2016 (Ex. 1005).

³ US 2015/0262214 A1, pub. Sept. 17, 2015 (Ex. 1006).

⁴ US 8,391,886 B1, iss. March 5, 2013 (Ex. 1010). Petitioner omits this reference from the identification of Grounds (Pet. 1–2), but includes it in the analysis of Ground 3 (*id.* at 26–27), identifying the reference as “Cellco.” In view of the named inventor on the reference, we identify this reference as “Thaper (Cellco).” *See* Ex. 1010, code (54).

⁵ WO 2017/079838 A1, pub. May 18, 2017 (Ex. 1007).

⁶ US 9,094,137 B1, iss. July 28, 2015 (Ex. 1008).

Ground	Claims Challenged	35 U.S.C. §	Basis/Reference(s)
7	1, 11–27	103	Adharapurapu (Alcatel), ⁷ Kerr ⁸
8	1, 11–27	103	Adharapurapu (Alcatel), Kerr, Muhire
9	1–6, 22–27	103	Adharapurapu (Alcatel), Kerr, Felt (Verizon)
10	1–6, 22–27	103	Adharapurapu (Alcatel), Kerr, Muhire, Felt (Verizon)
11	7–10	103	Adharapurapu (Alcatel), Kerr, Muhire, Felt (Verizon), Sehn
12	28, 29	102	Adharapurapu (Alcatel)
13	28, 29	103	Adharapurapu (Alcatel), Kerr and/or Geer

In addition, Petitioner relies upon a Declaration of Steven H. Goldberg (Ex. 1002) filed with the Petition.

II. PATENTABILITY ANALYSIS

A. Legal Standards

“In 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*, 800 F.3d at 1378.

Petitioner’s challenge is based on anticipation and obviousness.
Pet. 1.

⁷ EP 2 424 278 A1, pub. Feb. 29, 2012 (Ex. 1009). Petitioner (*see* Pet. iv) identifies this reference by the name of the assignee identified thereon — “Alcatel” — although the named inventor is Adharapurapu. Ex. 1009, code (72). We identify this reference as “Adharapurapu (Alcatel).”

⁸ Petitioner also cites Thaper (Cellco) in Ground 7, but does not rely on Thaper (Cellco) to satisfy any claim limitation. *See* Pet. 55.

In order to establish anticipation, under 35 U.S.C. § 102, each and every element in a claim, arranged as recited in the claim, must be found in a single prior art reference. *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008); *Karsten Mfg. Corp. v. Cleveland Golf Co.*, 242 F.3d 1376, 1383 (Fed. Cir. 2001). Each element of the challenged claim must be found, either expressly or inherently, in the single prior art reference. *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987). When evaluating a prior art reference in the context of anticipation, the reference must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994) (citing *In re Samour*, 571 F.2d 559, 562 (CCPA 1978)). “[A] reference can anticipate a claim even if it ‘d[oes] not expressly spell out’ all the limitations arranged or combined as in the claim, if a person of skill in the art, reading the reference, would ‘at once envisage’ the claimed arrangement or combination.” *Kennametal, Inc. v. Ingersoll Cutting Tool Co.*, 780 F.3d 1376, 1381 (Fed. Cir. 2015) (quoting *In re Petering*, 301 F.2d 676, 681 (CCPA 1962)) (alteration in original).

In order to be anticipatory, a prior art reference must enable a person of ordinary skill in the art to make the invention without undue experimentation. *See Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1336 (Fed. Cir. 2008). A sufficiently enabling anticipatory reference must put the invention “in the possession” of the person of ordinary skill in the art. *See Impax Labs., Inc. v. Aventis Pharms. Inc.*, 545 F.3d 1312, 1315 (Fed. Cir. 2008).

In order to establish that a patent claim is unpatentable, as obvious under 35 U.S.C. § 103(a), it must be established that the differences between

the claimed subject matter and the prior art are such that the subject matter, as a whole, would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) when in evidence, objective evidence of non-obviousness (i.e., so-called secondary considerations). *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). We also recognize that prior art references must be “considered together with the knowledge of one of ordinary skill in the pertinent art.” *Paulsen*, 30 F.3d at 1480 (citing *Samour*, 571 F.2d at 562).

The Supreme Court has explained that an obviousness determination may consider the teachings of multiple prior art references, the knowledge and capabilities of persons having ordinary skill in the art (at the relevant time), as well as “the effects of demands known to the design community or present in the marketplace,” “in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (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))). As the Federal Circuit has stated, “[w]ithout any explanation as to how or why the references would be combined to arrive at the claimed invention, we are left with only hindsight bias that *KSR* warns against” and “we cannot allow hindsight bias

to be the thread that stitches together prior art patches into something that is the claimed invention.” *Metalcraft of Mayville, Inc., v. The Toro Co.*, 848 F.3d 1358, 1367 (Fed. Cir. 2017). “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).

B. Level of Ordinary Skill

As discussed above, various determinations in patent law (e.g., claim interpretation and obviousness) rely upon the perspective of a hypothetical person of ordinary skill in the art at the time of the invention.

In the Petition, Petitioner states that a person of ordinary skill in the art to which the ’620 patent pertains “would have had a Bachelor of Science Degree in Computer Science, Electrical Engineering, Computer Engineering or equivalent, and about two to three years of practical experience.” Pet. 4. Petitioner further notes that “[a]dditional experience may substitute for specific education, or specific education may substitute for experience.” *Id.* (citing Ex. 1002 ¶ 26).

Our Institution Decision addressed the matter of the appropriate level of ordinary skill, in view of the Petition and the Preliminary Response, as follows:

The parties’ descriptions of the level of ordinary skill at the time of the invention do not appear to differ in any material way that would affect this Decision. However, at this stage of the proceeding, it is unclear whether it would be proper to require Patent Owner’s proposed requirement of “three years of experience working with digital advertising and geofencing.” Prelim. Resp. 10–11. Accordingly, for the purposes of this [Institution] Decision, we adopt Petitioner’s description of the relevant level of skill in the art, because it appears to be

consistent with the level of skill reflected in the '620 patent and asserted prior art.

Inst. Dec. 16.

Patent Owner's Response endorses the determination presented in the Institution Decision. PO Resp. 2. Petitioner does not address our initial determination in its Reply. *See generally* Pet. Reply.

Accordingly, consistent with our Institution Decision, in this Final Written Decision, we employ Petitioner's description of the relevant level of skill in the art.

C. Claim Interpretation

In an *inter partes* review, we construe claims using the same standard applied in a district court. *See* 37 C.F.R. § 42.100(b). Under this standard, claim terms are generally given their plain and ordinary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). The sources available for guidance, when undertaking claim construction, "include both intrinsic evidence (*e.g.*, the patent specification and file history) and extrinsic evidence (*e.g.*, expert testimony)." *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

"The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.'" *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Petitioner states that it “believes that the constructions of terms can be appreciated from their overall discussion and application of prior art herein, and does not require express construction at this time.” Pet. 4.

In its Preliminary Response, Patent Owner asserts that “[t]he term ‘[c]onsumer’ should be construed as a ‘user or person to whom an advertisement is sent to elicit engagement.’” Prelim. Resp. 11–12. Patent Owner further asserts, therein, that “all other claim terms should be given their plain and ordinary meaning as used in the ’620 patent specification and file history.” *Id.* at 14.

As to the term “consumer,” Patent Owner’s Preliminary Response points to portions of the ’620 patent and its prosecution history. Prelim. Resp. 11–13 (quoting Ex. 1001, Abstr., 7:29–37;⁹ Ex. 2002, 52). These citations do not appear to support Patent Owner’s proposed construction of “consumer.” Rather, the particular narrow meaning, of Patent Owner’s proposal, in the Preliminary Response, appears to be articulated by words, in the cited passages, other than the word “consumer.” The ’620 patent Abstract refers to “target[ing] consumer profiles” and “engaging the consumer at the right time/place, with the targeted profile.” Ex. 1001, Abstr. Similarly, the identified portion of the ’620 patent’s disclosure states that a platform administrator may interact “with its target content consumers.” *Id.* at 7:29–31. Further, the Notice of Allowance (Feb. 27, 2020) refers to claim language requiring “checking for consuming qualification for targeting by advertiser . . . by having a delivery rule corresponding to at least one element of PROFILE data.” Ex. 2002, 52. In Patent Owner’s cited examples from

⁹ Patent Owner’s Preliminary Response incorrectly identifies the citation for the quoted passage. *See* Prelim. Resp. 12 (citing “Exh. 1001, 8:35–57”).

the intrinsic record, the focused definition that Patent Owner’s Preliminary Response proposes — “user or person to whom an advertisement is sent to elicit engagement” (Prelim. Resp. 11) — is conveyed by words that modify the term “consumer,” as opposed to any special meaning of the term “consumer” itself. The Abstract refers to “target[ing] . . . profiles” and applying “the targeted profile.” Ex. 1001, Abstr. The ’620 patent disclosure refers to “target content.” *Id.* at 7:30. Similarly, the cited Notice of Allowance refers to “checking for . . . qualification for targeting by advertiser,” on account of the “PROFILE data.” Ex. 2002, 52.

Therefore, the Institution Decision, based upon on the record existing at that time, did not adopt Patent Owner’s proposed construction of the claim term “consumer” provided in the Preliminary Response.

Thereafter, in the Response, “Patent Owner proposes that ‘consumer’ be construed to mean ‘a user or person to whom an advertisement may be sent.’” PO Resp. 11.

In its Reply, Petitioner did not address the construction of the term “consumer” and Patent Owner did not revisit the matter in its Sur-reply.

The Specification of the ’620 patent supports the understanding that a “consumer” is “a user or person,” per Patent Owner’s proposal (PO Resp. 11). *See* Ex. 1001, 8:36–38 (“The AdDrop™ may require the consumer to be one of the first few people to input an answer to a question to win the promotion.”) However, Patent Owner’s further proposed requirement — i.e., that a “consumer” be someone “to whom an advertisement *may be sent*” — would cloud, rather than clarify, the term’s meaning. PO Resp. 11 (emphasis added). For instance, under Patent Owner’s construction, it is not clear if “consumers” require access to the

cellular network or Internet in order to be sent advertisements. Further, Patent Owner’s proposed construction would not assist in resolving any issue in this proceeding, contrary to our ambition to construe claim terms “only to the extent necessary to resolve the controversy.” *Vivid Techs.*, 200 F.3d at 803.

Moreover, the role of the term “consumer,” in the ’620 patent’s claims, is based upon the relationship of the “consumer” to particular actions and instrumentalities, e.g., associated “media content,” “profile data,” or a “device.” *See, e.g.*, Ex. 1001, 37:57, 66–67, 38:15.

In view of the foregoing, we do not adopt Patent Owner’s proposed construction that requires a “consumer” to be a person “to whom an *advertisement may be sent.*” *See* PO Resp. 11 (emphasis added).

D. Prior Art References

1. Felt (Verizon) (Ex. 1004)

Felt (Verizon) is a US patent application, published on April 2, 2015, titled “Method and System for Realtime Display or Distribution of Advertisements.” Ex. 1004, codes (12), (43), (54). The reference relates to “displaying marketing content at a predetermined location and at a predetermined time.” *Id.*, Abstr. Further, “[v]arious categories or criteria may be tagged to the marketing content and may be displayed or distributed only when the various criteria are satisfied. *Id.* The reference discloses that advertisements may be presented “in realtime or near realtime based on the particular location of the advertisement or time of display” and that sponsors may “push the same or a similar advertisement/incentive to nearby potential customers. *Id.* ¶ 18. An embodiment involves “delivering marketing content to mobile or even stationary devices” *Id.* ¶ 21. Another

embodiment involves distributing marketing content “to nearby mobile devices . . . users of which may have viewed the marketing content on [a] mobile unit.” *Id.* ¶ 44.

2. *Kerr (Ex. 1005)*

Kerr is a US patent application, published on October 20, 2016, titled “Targeted Content Delivery.” Ex. 1005, codes (12), (43), (54). Kerr relates to “delivering targeted content to a wireless handset . . . communicatively coupled to a network.” *Id.*, Abstr. Specifically, the system transmits content to a handset based on an associated user profile having at least one user attribute. *Id.* In an example, Kerr discloses sending “text advertising a sale on ski equipment” to a user that “has indicated an interest in skiing.” *Id.* ¶¶ 133–34.

3. *Geer (Ex. 1006)*

Geer is a US patent application, published on September 17, 2015, titled “Geofenced Event-Based Fan Networking: Methods.” Ex. 1006, codes (12), (43), (54). Geer relates to “to social networking at an event in a venue,” and more specifically “to providing such functionality through geolocated portable smart devices.” *Id.* ¶ 2. Geer discloses “offer[ing] customized services to fans, such as messaging, fan groups, friends networking, mementos, coupons, and contests.” *Id.* ¶ 6.

4. *Muhire (Ex. 1007)*

Muhire is an international publication, published on May 18, 2017, titled “System and Method for Offering Automated Promotions and Special Offers in Real-Time.” Ex. 1007, codes (12), (43), (54). Muhire relates to “systems and methods that allow a user to save, manage time and budget via

electronic means.” *Id.* ¶ 1. In one aspect, Muhire discloses “a system for offering promotions and special offers from sellers in real time to a user’s portable multifunctional device.” *Id.* ¶ 32. Muhire also discloses a “Profile” feature that records, for example, a consumer’s order history, billing and shipping information, interests and preferences, and allows consumers to “get updates and information on their friends [and] merchants.” *Id.* ¶ 43.

5. *Sehn (Ex. 1008)*

Sehn is a US patent, issued on July 28, 2015, titled “Priority Based Placement of Messages in a Geo-Location Based Event Gallery.” Ex. 1008, codes (12), (45), (54). *Sehn* relates to “creating an event gallery associated with an event using messages received from devices located within a geo-location fence. *Id.*, Abstr. *Sehn* discloses the use of an “advertising module” that “scan[s] the content of messages for a specific brand,” whereupon a “communication module” may send a message to a brand owner, “offering the brand owner an opportunity to prioritize the message in the event gallery.” *Id.* at 5:33–49.

6. *Adharapurapu (Alcatel) (Ex. 1009)*

Adharapurapu (Alcatel) is a European patent application, published February 29, 2012, titled “Content delivery based on direction of mobility.” Ex. 1009, codes (12), (43), (54). *Adharapurapu (Alcatel)* relates to “delivering content to a mobile device based on the direction of mobility of the device.” *Id.*, Abstr. “Based on the mobility history of [the] mobile device, contents available and rules processor, the system decides on content to be sent to the mobile device.” *Id.* “[A] mobile service provider network . . . keeps track of location and direction of all the mobile devices . . .

through base stations, where the subscriber has enabled the content delivery based on direction of mobility service.” *Id.* ¶ 15.

In an example, Adharapurapu (Alcatel) discloses that “[i]nformation saying ‘Road X closed for construction every Sunday from 6AM–3PM till August 2010’ will be sent to all the mobile devices that are in the vicinity of the road and have subscriber to the content delivery based on mobility service.” *Id.* ¶ 17. Adharapurapu (Alcatel) indicates that “[t]he content may be advertisements, weather update, traffic updates or any other information which may be beneficial to the mobile device . . . user and the content publishers.” *Id.* ¶ 16.

7. *Thaper (Cellco) (Ex. 1010)*

Thaper (Cellco) is a US patent, issued on March 5, 2013, titled “Systems and Methods for Providing Mobile Handset Position to Software Applications.” Ex. 1010, codes (12), (45), (54). Thaper (Cellco) relates to techniques for “provid[ing] a quick effective way to provide an [sic] software application with information as to the location of a mobile station connected to a wireless network.” *Id.* at 2:19–21.

E. Analysis of the Asserted Grounds

For the reasons addressed below, we determine that Petitioner sufficiently demonstrates unpatentability of claims 1–29, in view of the identified grounds, as follows: claims 1 and 11–27 (Ground 7, obviousness based upon Adharapurapu (Alcatel) and Kerr); claims 1–6 and 22–27 (Ground 9, obviousness based upon Adharapurapu (Alcatel), Kerr, and Felt (Verizon)); claims 7–10 (Ground 11, obviousness based upon Adharapurapu

(Alcatel), Kerr, Felt (Verizon), and Sehn); claims 28 and 29 (Ground 12, anticipation based upon Adharapurapu (Alcatel)).

*1. Claims 1 and 11–27 Allegedly Obvious over
Adharapurapu (Alcatel) and Kerr
(Ground 7)*

a. Allegations Regarding Claim 1

We address the parties’ arguments, as to the identified limitations, below. In view of the evidence of record (including the unchallenged testimony of Dr. Goldberg), we determine that Petitioner sufficiently demonstrates the unpatentability of claim 1.

- 1. [preamble] A method comprising:*
[1(a)] registering asset data, wherein registering the
asset data comprises at least one of the following:
[1(a)(i)] registering a first geolocation associated
with one of the following:
[1(a)(i)(1)] a physical asset, and
[1(a)(i)(2)] a virtual asset;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim 1’s preamble and limitation 1(a) (including subparts 1(a)(i) and 1(a)(i)(1)) because the reference discloses a method for media content delivery, based upon requirements associated with the geolocation of, e.g., a point of interest along a road (such as a restaurant). *See* Pet. 41–43 (citing Ex. 1002 ¶¶ 176–178; Ex. 1009 ¶¶ 2, 4, 7, 15–22, Fig. 3).

Petitioner also argues:

Additionally or alternatively, to the extent that Alcatel does not expressly or elaborately describe “registering” asset data, for example, by affirmative act, additionally or

alternatively, Kerr teaches such administrative control/access to provide registration of asset data including geolocation of businesses via a user interface.

Pet. 50 (citing Ex. 1005 ¶¶ 64–68 (administration), 80, 84 (interface), 87, 89, 91–92, 96–97, 120 (relevance interface), 121, 125, 128, 133–164, 168–172, 177–183 (access); Figs. 4–9, 15, 19–25, 30–35). In one aspect, Kerr discloses “[a] geofence, also referred to as a ‘content bubble’” that establishes “a virtual geographic boundary line delineating a geographic area.” Ex. 1005 ¶ 67. In an example, Kerr describes transmitting particular content (associated with a sale of ski equipment) to a wireless handset “located in geofence 710 encompassing the Sports Shop.” *Id.* ¶ 138. In terms of limitation 1(a) (and its subparts), Kerr discloses a “registering a first geolocation” (the geofence) “associated with” a “physical asset” (the Sports Shop).

Petitioner also argues, with support from the unchallenged testimony of Dr. Goldberg, that a person of ordinary skill in the art “would have implemented such registration aspects of Kerr into Alcatel to promote ease of implementing/adjusting requirements, ease of understanding distribution and location schemes, and/or for effectiveness in human-machine interfacing in support of targeted content.” Pet. 50–51 (citing Ex. 1002 ¶¶ 196–197).

Patent Owner’s Response does not dispute Petitioner’s position that either Adharapurapu (Alcatel) or Kerr teach or suggest claim 1’s preamble and limitation 1(a) (including its subparts). *See* PO Resp. 30–34.

However, in Patent Owner’s Sur-reply, Patent Owner presents a new argument, to the effect that Adharapurapu (Alcatel) does not disclose the recited “geolocation” feature of limitation 1(a)(i) (as well as limitation 1(c)(ii), which is further addressed below), because “Adharapurapu is

provider base station and provider network dependent, which means that it does not need to rely on geolocation, as required by claim limitations 1(a)(i), 1(c)(ii), 28(a)(i), 28(c)(i), 29(a)(i), and 29(c)(ii) of claims 1, 28 and 29.”

PO Sur-reply 13. Patent Owner expressed the same view at oral argument. *See* Tr. 28–34.

As an initial matter, such a new argument that is introduced in a Sur-reply is improper. *See* 37 C.F.R. § 42.23(b) (“A sur-reply may only respond to arguments raised in the corresponding reply.”); Consolidated Trial Practice Guide¹⁰ 74 (Nov. 2019) (“While replies and sur-replies can help crystalize issues for decision, a reply or sur-reply that raises a new issue or belatedly presents evidence may not be considered. The Board is not required to attempt to sort proper from improper portions of the reply or sur-reply.”); *Hulu, LLC v. SITO Mobile R&D IP, LLC*, IPR2021-00158, Paper 34 at 55 (PTAB Apr. 15, 2022).

In addition, Patent Owner’s new “geolocation” argument is founded on attorney argument, without adequate support in record evidence, and is contradicted by the unchallenged testimony of Dr. Goldberg. *See* Ex. 2002 ¶¶ 29–66 (discussing terrestrial location technologies), 175–195 (discussing the disclosure of “geolocation” features in the Adharapurapu (Alcatel) reference).

Further, with regard to Petitioner’s alternative argument that the combination of Alcatel and Kerr would render obvious limitation 1(a) (and its subparts), Patent Owner contends that Petitioner does not identify a

¹⁰ Available at <https://www.uspto.gov/TrialPracticeGuideConsolidated>.

sufficient reason to combine the teachings of Adharapurapu (Alcatel) and Kerr. *See* PO Resp. 33–34. Patent Owner states:

[T]he only motivation to combine that the Patent Owner could discern in the Petition is “[t]o the extent that Adharapurapu does not elaborately discuss particular features such as profile data, a POSITA would have implemented these features based on Adharapurapu’s suggestions, Kerr’s disclosure, and/or POSITA’s skill and/or knowledge. Pet. 41 (Citing [Ex. 1002], ¶ 176). This is not a motivation to combine the references. This is just a statement that it may be possible to combine the reference. The Petitioner asserting that if Adharapurapu does not elaborately discuss a feature, then Kerr suggests them does not explain what the feature is and why a POSITA would be motivated to combine it with the teachings of Kerr.

Id.

Yet, Patent Owner does not address Petitioner’s stated reasons (quoted above) for combining teachings of Adharapurapu (Alcatel) and Kerr, regarding the “registering asset data” features of limitation 1(a) (including its subparts) — reasons that are supported by the unchallenged testimony of Dr. Goldberg. *See* Pet. 50–51 (citing Ex. 1002 ¶¶ 196–197).

Still further, Patent Owner does not address Petitioner’s other reasons for combining teachings of Adharapurapu (Alcatel) and Kerr, concerning the recited “content interaction layer” and “consumer tracking layer” features of limitation 1(b) (including its subparts): ,

POSITA would have found it obvious to incorporate Kerr’s user content interaction features into Alcatel to provide user subjective information/feedback for improving the accuracy, reducing noise, and enhancing efficiency in tailored communications.

Pet. 43–44. Petitioner’s discussion of these reasons for combining the references’ teachings is supported by additional un rebutted testimony of Dr. Goldberg. Ex. 1002 ¶ 180.

Having considered the parties’ arguments and the evidence of record (including the unchallenged testimony of Dr. Goldberg), we determine that Petitioner has sufficiently shown that the combination of Adharapurapu (Alcatel) and Kerr teach or suggest limitation 1(a) (including all subparts).

[1(b)] receiving media content to be associated with at least one registered asset, wherein the media content is configured to be operative with a content interaction layer and a consumer tracking layer to enable:

[1(b)(i)] interacting with a consumer of the media content in conjunction with, at least in part, the media content, and

[1(b)(ii)] tracking the consumer of the media content in conjunction with, at least in part, the media content;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(b) (including subparts). *See* Pet. 43–45 (citing Ex. 1009 ¶¶ 2, 6, 14, 16, 17, 19, 20, 22, Fig. 3; Ex. 1002 ¶¶ 179, 181–184). Petitioner argues that Adharapurapu (Alcatel) “discloses its content as operative with a consumer tracking layer at least by software-implementation of location-based content delivery” and “further discloses consumer interaction at least by enabling/disabling subscription service.” *Id.* at 43 (citing Ex. 1002 ¶ 179; Ex. 1009 ¶¶ 6, 14, 17, 19, 20, 22).

Further, relying upon the unchallenged testimony of Dr. Goldberg, Petitioner states:

But to the extent that Alcatel lacks express or elaborate discussion of consumer interaction as interaction with content specifically, . . . Kerr discloses tailored content delivery with location tracking (§§ [0066]-[0067], [0071], [0074]) including user interaction to like/dislike and create content.

Pet. 43 (citing Ex. 1002 ¶ 180; Ex. 1009 §§ 121, 122, 163, 166, Figs. 32–33).

Notably, as to the recited “layer[s]” in the claim language, Petitioner points out — in view of Dr. Goldberg’s unchallenged testimony — that a “POSITA would have appreciated that logic software, as disclosed by Alcatel’s subscription/enabling and location tracking and Kerr’s likes/creation and location tracking, routinely include distinct software layers.” Pet. 44 (citing Ex. 1002 §§ 182–184); *see also* Ex. 1002 §§ 44–53. Hence, “[e]ach of Alcatel and Kerr indicate individual operations for considering content interactions and tracking consumer location that are implemented with layers based on their individual primary operations.” Pet. 44 (citing Ex. 1002 ¶ 184); *see also id.* at 44–45 (citing Ex. 1002 §§ 183–184).

Patent Owner does not dispute Petitioner’s position that each of Adharapurapu (Alcatel) and Kerr teaches all the limitation 1(b) (including its subparts). *See* PO Resp. 30–33.

Yet, Patent Owner disputes that Petitioner has identified a sufficient reason to combine the teachings of Adharapurapu (Alcatel) with those of Kerr. *See* PO Resp. 33–34. However, for the reasons discussed above (regarding limitation 1(a) and its subparts), we determine that Petitioner has identified a sufficient reason to combine the references’ teachings. *See also* Pet. 45.

Having considered the parties’ arguments and the evidence of record (including the unchallenged testimony of Dr. Goldberg), we determine that

Petitioner has sufficiently shown that Adharapurapu (Alcatel) teaches limitation 1(b) (including all subparts), and that the combination of Adharapurapu (Alcatel) and Kerr teaches or suggest limitation 1(b) (including all subparts).

[1(c)] specifying a plurality of rules for selecting the media content to deliver to the consumer, wherein specifying the plurality of rules comprises specifying:

With the support of the unchallenged testimony of Dr. Goldberg (*see* Ex. 1002 ¶ 185), Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(c). Pet. 45 (citing Ex. 1009 ¶ 17 (“[R]ules processor 204 contains a set of rules for delivery of content. These rules are defined by the mobile service provider based on the content publisher’s requirement. The content publishers can specify their requirements for content and send it along with the content to the mobile service provider network 103.”))

Patent Owner does not dispute Petitioner’s position that Adharapurapu (Alcatel) teaches limitation 1(c). *See* PO Resp. 30–33.

Having considered Petitioner’s arguments and evidence, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches limitation 1(c).

[1(c)(i)] a first rule for delivering the media content, the first rule being associated with at least one element of profile data corresponding with the consumer, and

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(c)(i). Pet. 45–46 (citing Ex. 1009 ¶¶ 15, 22; Ex. 1002 ¶¶ 186–187). Dr. Goldberg regards the subscriber’s enabling/disabling of the content-delivery

service, described in Adharapurapu (Alcatel) (*see* Ex. 1009 ¶ 15) as the recited “first rule for delivering the media content, . . . being associated with at least one element of profile data corresponding with the consumer.” *See* Ex. 1002 ¶ 186.

Further, Petitioner states:

Additionally or alternatively, to the extent that Alcatel does not expressly or elaborately discuss such items as profile data, Kerr discloses specifying a content delivery rule for profile data as recited. Kerr, ¶¶ [0181] (e.g., age, gender), [0182] (select only content items: gender female). POSITA would have found it obvious to incorporate such rule concerning profile data, as taught by Kerr, to provide user-specific tailoring of content for improvement in accuracy, reducing noise, and/or enhancing efficiency for communications.

Pet. 46. Dr. Goldberg’s unchallenged testimony supports this reading of Kerr and the reason for combining the references’ teachings. *See* Ex. 1002 ¶¶ 186–187.

Patent Owner does not dispute Petitioner’s position that Adharapurapu (Alcatel) teaches limitation 1(c)(i). *See* PO Resp. 30–33.

Patent Owner also does not dispute Petitioner’s alternative position that Kerr also teaches the identified portions of limitation 1(c)(i). *See* PO Resp. 30–33. However, as noted above, Patent Owner disputes that Petitioner has identified a sufficient reason to combine the teachings of Adharapurapu (Alcatel) with those of Kerr. *See id.* at 33–34. For the reasons discussed above, we determine that Petitioner has identified a sufficient reason to combine the references’ teachings.

Having considered Petitioner’s arguments and evidence, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches

limitation 1(c)(i), as well as the alternative position that the combination of Adharapurapu (Alcatel) and Kerr teaches or suggests limitation 1(c)(i).

[1(c)(ii)] a second rule for updating the media content, the second rule being associated with a second geolocation;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(c)(ii). *See* Pet. 43–45 (citing Ex. 1002 ¶ 188; Ex. 1009 ¶¶ 18, 20–22, Fig. 3). Petitioner contends that the disclosure, in Adharapurapu (Alcatel), of motion/location-based rules, for delivering advertising content to a mobile device — e.g., the travel of a mobile device, in a particular direction and time, results in updating advertising content for a gift shop — teaches the recited “second rule.” *Id.*

Disputing Petitioner’s argument concerning limitation 1(c)(ii), Patent Owner argues that Adharapurapu (Alcatel) does not teach the recited “second rule” that is “associated with a second geolocation”:

¶¶[0018], [0020]–[0022] of Adharapurapu provides that “the direction of the travel is ascertained and content information related to restaurant R1 can be sent to the mobile device 107 along with content information of restaurant R2 alone.” Adharapurapu 5:10–14. A second rule is not associated with a second geolocation in Adharapurapu. Rather, Adharapurapu teaches to send information for both restaurants R1 and R2 with the original determination of direction of travel. By contrast, a second geolocation is not used to update media content is updated[sic]. Hence, the second rule of claim limitation 1(c)(ii) is not satisfied.

PO Resp. 31; *see also id.* (“[D]irection . . . is being used and not the claimed second geolocation.”)

We disagree with Patent Owner’s argument that Adharapurapu (Alcatel) fails to disclose limitation 1(c)(ii)’s “second rule” that is “associated with a second geolocation.” Indeed, Petitioner explains — relying upon citations to the reference and to Dr. Goldberg’s testimony — that Adharapurapu (Alcatel) discloses delivery of specified content to a mobile device, based upon the direction of travel of the mobile device, wherein the direction of travel is determined with the use of data regarding multiple locations that could satisfy the recited “second location.” *See* Pet. Reply 18–19 (citing Ex. 1009 ¶¶ 18, 20–22; Ex. 1002 ¶¶ 188–189). Such use of a “second geolocation,” to determine a direction of travel, is manifest in Adharapurapu (Alcatel)’s statements that “[a]s the mobile device 107 keeps moving from one location to another, tracker base stations in every location register the mobile device,” wherein “[t]he location of the tracker base stations 105 which register the mobile device 107 gives the location and direction of movement of the mobile device 107,” and “[w]ith the location information, the direction of the travel is ascertained and content information related to restaurant R1 can be sent to the mobile device 107 along with content information of restaurant R2 alone.” Ex. 1009 ¶¶ 18, 21.

In a manner similar to that noted above, with regard to limitation 1(a)(i), Patent Owner’s Sur-reply presents a new argument for the position that Adharapurapu (Alcatel) fails to disclose limitation 1(c)(ii), by contending that the reference lacks the recited “geolocation” features. *See* PO Sur-reply 13–15. For the reasons discussed above, this new Sur-reply argument is untimely and contrary to the unchallenged testimony of Dr. Goldberg.

At the oral argument, Patent Owner also appears to have introduced a new argument, concerning whether references cited in the Petition satisfy the “updating the media content” feature of limitation 1(c)(ii) (and/or similar features of limitations 1(h) and 1(i)). *See* Tr. 22–28, 55–58. Although it is unclear whether Patent Owner regards this argument as pointing out a deficiency in the Adharapurapu (Alcatel) reference, the argument would, nevertheless, be improper; new arguments may not be introduced at oral argument. *See Dell Inc. v. Acceleron, LLC*, 884 F.3d 1364, 1369 (Fed. Cir. 2018) (noting that the “Board was obligated to dismiss [the petitioner’s] untimely argument . . . raised for the first time during oral argument”); *see also* Consolidated Trial Practice Guide 85–86 (“During an oral hearing, a party may rely upon . . . evidence that has been previously submitted in the proceeding, but may only present arguments relied upon in the papers previously submitted.”)

Having considered the parties’ arguments and the evidence of record, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches limitation 1(c)(ii).

[1(d)] receiving an activation command for triggering a delivery of the media content, wherein receiving the activation command comprises at least one of the following:

[1(d)(i)] determining that a spatial trigger has occurred,

[1(d)(ii)] determining that a time-based trigger has occurred, and

[1(d)(iii)] determining that an event has occurred,

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(d)

and subparts 1(d)(i), 1(d)(ii), and 1(d)(iii). Pet. 47–48 (citing Ex. 1009

¶¶ 17, 20–22; Ex. 1002 ¶ 190). Petitioner argues:

Alcatel receives location information from the mobile device traveling along, and determines relevant spatial proximity and time determinations such as nearby a closed road 6AM–3PM (Alcatel, ¶[0017]), and under proximity to the stations within their times for gift shop G, restaurants R1, and Christmas event in City C (*id.*, ¶[0020]). Moreover, at least Alcatel’s Christmas event beginning constitutes an event occurrence. Alcatel, ¶[0020].

Id.

Patent Owner does not dispute Petitioner’s position that Adharapurapu (Alcatel) teaches claim limitation 1(d) and subparts 1(d)(i), 1(d)(ii), and 1(d)(iii). *See* PO Resp. 30–33.

Having considered Petitioner’s arguments and evidence, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches limitation 1(d) (including all subparts).

[1(e)] comparing the first rule and the at least one element of profile data associated with the consumer in order to determine whether to deliver the media content to the consumer;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel), modified in view of Kerr, teaches or suggests claim limitation 1(e):

Alcatel discloses comparing the first rule and the profile data element as recited, at least by checking subscription status of consumer. Alcatel, ¶¶[0015], [0022] (check if user subscribed). Moreover, under modification with Kerr to consider additional profile data, Kerr teaches such comparison as recited for specific delivery, and also for relevance values, to apply user-specific considerations in tailoring content for the

benefits mentioned above. *Supra*, § XI(A) (element 1(c)); Kerr, ¶¶[0181] (*e.g.*, age, gender), [0182] (select only content items: gender female), [0183] (relevance weighting); FIGs. 32–33; [Ex. 1002] ¶ 191 (direct and relevance weighting each provides comparison).

Pet. 48.

Patent Owner does not dispute Petitioner’s position that Adharapurapu (Alcatel) and Kerr teach or suggest claim limitation 1(e). *See* PO Resp. 30–33.

Having considered Petitioner’s arguments and evidence, we determine that Petitioner sufficiently demonstrates that the combination of Adharapurapu (Alcatel) and Kerr teaches or suggests limitation 1(e).

[1(f)] delivering the media content to a device associated with the consumer when the first rule is met;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel), modified in view of Kerr, teaches or suggests claim limitation 1(f):

Alcatel discloses delivering the media content when the first rule is met as recited. *See* Alcatel, ¶¶[0004], [0020], [0021], [0022] (check whether user has subscribed, and delivers appropriate content). Moreover, Kerr discloses such delivery as recited, for example, by direct decision and by relevance weighting for the same user-specific benefits mentioned above. Kerr, ¶¶[0181] (*e.g.*, age, gender), [0182] (select only content items: gender female), [0183] (relevance weighting); FIGs. 32–33; DEC., ¶ 192 (direct and relevance weighting each provides comparison).

Pet. 48–49.

Patent Owner does not dispute Petitioner's position that Adharapurapu (Alcatel) and Kerr teach or suggest claim limitation 1(f). *See* PO Resp. 30–33.

Having considered Petitioner's arguments and evidence, we determine that Petitioner sufficiently demonstrates that the combination of Adharapurapu (Alcatel) and Kerr teaches or suggests limitation 1(f).

[1(g)] tracking a location associated with the consumer further to the delivery of the media content;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(g):

Alcatel discloses tracking a location associated with the consumer further to the delivery of the media content. *E.g.*, Alcatel, ¶¶[0017], [0020]–[0022]. Alcatel discloses continuing tracking of location after delivery of content, for example, by examples (¶[0020]), and also by tracking between locations generally (¶[0018]). *See* Alcatel, ¶[0002] (current); [Ex. 1002], ¶ 193.

Pet. 49.

Patent Owner does not dispute Petitioner's position that Adharapurapu (Alcatel) teaches claim limitation 1(g). *See* PO Resp. 30–33.

Having considered Petitioner's arguments and evidence, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches limitation 1(g).

[1(h)] comparing the second rule and the location in order to determine whether to update the media content; and

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim limitation 1(h):

Alcatel discloses comparing and updating the media content as recited, by its overall location-based services. *E.g.*, Alcatel, ¶¶[0017], [0020]–[0022]. POSITA would have appreciated that Alcatel’s location tracking and comparison with the second rule continues on and that any of its non-limiting examples, apply continuously, and even simultaneously where applicable, according user travel. *Id.*, *see also* Alcatel, ¶[0002] (current); [Ex. 1002], ¶ 194.

Pet. 49.

Patent Owner disputes Petitioner’s position that Adharapurapu (Alcatel) teaches claim limitation 1(h), solely because “claim element 1(h) . . . relies on prior missing element 1(c)(ii).” PO Resp. 32.

As discussed above, we have considered Patent Owner’s arguments regarding limitation 1(c)(ii), but nevertheless determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches the limitation. Similarly, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches the limitation 1(h).

*[1(i)] updating the media content at the device
associated with the consumer when the second rule is met.*

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel)’s disclosure of location-based services teaches claim limitation 1(i). Pet. 49–50 (citing Ex. 1002 ¶ 185; Ex. 1005 ¶¶ 71, 74; ¶¶ 2, 20–22). Petitioner argues:

Alcatel’s location-tailored content service continues amid the user’s travel, and updates according to that travel. For example, having delivered initial content from a given station X as the second geolocation in a first direction, further travel triggering delivery of content near station X would update accordingly, including under changed circumstances such as current news, weather, promotions etc. Alcatel, ¶¶ 2, 22; [Ex. 1002], ¶ 195. Additionally, Alcatel would likewise update for wholly new

ads, for example, if direction of travel regarding station X dictated accordingly. Alcatel, ¶ [0022] (simultaneous operations); *see also* Kerr, ¶¶ [0071], [0074]; [Ex. 1002], ¶ 195.

Id. at 49–50.

Patent Owner does not dispute Petitioner’s position that Adharapurapu (Alcatel) teaches claim limitation 1(i). *See* PO Resp. 30–33.

Having considered the parties’ arguments and the evidence of record (including the unchallenged testimony of Dr. Goldberg), we determine that Petitioner has sufficiently shown that Adharapurapu (Alcatel) teaches limitation 1(i).

b. Allegations regarding Dependent Claims 11–27

Petitioner argues that dependent claims 11–27 would have been obvious over Adharapurapu (Alcatel) and Kerr and provides a detailed analysis of each of these claims, along with supporting evidence (including the unchallenged testimony of Dr. Goldberg). *See* Pet. 51–56.

Patent Owner does not raise any arguments directed specifically to these dependent claims. *See* PO Resp. 33–34.

In view of the arguments and evidence of record, including the unchallenged testimony of Dr. Goldberg, Petitioner shows by a preponderance of the evidence that the combination of Adharapurapu (Alcatel) and Kerr teaches or suggests limitation of dependent claims 11–27. In addition to our analysis for independent claim 1, above, we adopt Petitioner’s arguments and cited evidence as to dependent claims 11–27 as our own determination and basis. *See* Pet. 51–56.

2. *Claims 1–6 and 22–27 Allegedly Obvious over
Adharapurapu (Alcatel), Kerr, and Felt (Verizon)
(Ground 9)*

In Ground 9, Petitioner contends that Adharapurapu (Alcatel), Kerr, and Felt (Verizon) render obvious independent claim 1, as well as dependent claims 2–6 and 22–27, of the ’620 patent. *See* Pet. 58–59.

In addition to the evidence and arguments presented for Ground 7 (which alleges that claims 1 and 11–27 of the ’620 patent are unpatentable as obvious over the combination of Adharapurapu (Alcatel) and Kerr), Petitioner’s arguments for Ground 9 rely upon Felt (Verizon) for teaching the “mobile asset” recited in claim 2 (as well as claims 3–6 depending therefrom), and also the types of “interactivity criteria” recited in claim 24 — i.e., “a change in a physical location associated with the consumer” or “a particular destination to which the consumer must navigate” — along with additional unchallenged testimony of Dr. Goldberg. Pet. 58–59 (citing Ex. 1002 ¶¶ 214–216; Ex. 1004 ¶¶ 28, 53). Petitioner also relies upon the disclosures of Felt (Verizon) cited in Grounds 3–5 (addressing the alleged obviousness of claims 1–6 and 22–27). *Id.* at 59; *see also id.* at 18–38 (Grounds 3–5).

Petitioner argues that Felt (Verizon) satisfies the “mobile asset” limitation and that a person of ordinary skill in the art would have had a sufficient reason for combining Adharapurapu (Alcatel) with Felt (Verizon):

Verizon discloses mobile assets (e.g., Verizon, ¶[0028] (mobile units)) and user physically approaching businesses as content interaction (e.g., *id.*, ¶[0053]) which POSITA would have incorporated to allow repositioning of Alcatel’s stations for flexibility and/or adaptability to transient conditions like shows/events, and to improve accuracy, reduce noise, and enhance efficiency in communications by user-subjective

feedback, respectively. *Supra*, § VII(A) [Pet. 18–25]; [Ex. 1002], ¶¶ 214–216.

Pet. 58–59; *see also* Pet. Reply 22.

Disputing Petitioner’s position in Ground 9, Patent Owner (PO Resp. 35) refers to its arguments (addressed above in regard to Ground 7) alleging that Adharapurapu (Alcatel) fails to teach limitations 1(c)(ii) and 1(h) (*id.* at 30–32, §§ V.C.1(a), (b)) and that there is no reason to combine Adharapurapu (Alcatel) with Kerr (*id.* at 33–34, § V.C.2). For the reasons already addressed (regarding Ground 7), we disagree with Patent Owner’s arguments.

Having considered the parties’ arguments and the record evidence, including the unchallenged testimony of Dr. Goldberg, we determine that Petitioner sufficiently establishes the unpatentability of claims 1–6 and 22–27 in view of Adharapurapu (Alcatel), Kerr, and Felt (Verizon), as stated in Ground 9.

3. *Claims 7–10 Allegedly Obvious over Adharapurapu (Alcatel), Kerr, Felt (Verizon), and Sehn (Ground 11)*

In Ground 11, Petitioner contends, in view of the unchallenged testimony of Dr. Goldberg, that dependent claims 7–10 of the ’620 patent are unpatentable as obvious over two alternative combinations of references: (1) Adharapurapu (Alcatel), Kerr, Felt (Verizon), and Sehn; and (2) Adharapurapu (Alcatel), Kerr, Felt (Verizon), Muhire, and Sehn. *See* Pet. 59–60. We address the first of these two combinations.

Petitioner relies upon the arguments presented for claim 1 in Ground 9 (Pet. 59–60), which, in turn, rely upon the arguments presented for Grounds 7 and 3–5 (*id.* at 58–59).

Claims 7–10, each of which depends ultimately from claim 1, recite limitations relating to a “brand asset,” as well as “multimedia content” that may comprise “an image captured by the consumer”:

7. The method of claim 1, wherein registering the asset data comprises registering a brand asset, wherein the brand asset is comprised of a digitization of at least one of the following:

- a trade name,
- a trade design,
- a trade logo, and
- a source-identifier associated with a brand.

8. The method of claim 7, further comprises:

receiving a multimedia content, and

processing the multimedia content to ascertain an object within the multimedia content that corresponds to the brand asset.

9. The method of claim 8, wherein receiving the activation command for triggering the delivery of the media content comprises ascertaining that the brand asset is present within the multimedia content.

10. The method of claim 8, wherein receiving the multimedia content comprises receiving the multimedia content comprising an image captured by the consumer.

Ex. 1001, 38:40–59.

Petitioner argues that, with regard to the limitations of claims 7–10, Adharapurapu (Alcatel), as modified by Kerr, provides the limitation (in claim 7) of “registering a brand asset” comprising “a digitization of . . . a

trade name.”¹¹ Pet. 59 (citing Ex. 1005 ¶ 97 (“Sports Shop”), Figs. 2 (“Penguin Paddock”), 8, 31–33 (“Nevada Bar”)).

Petitioner further argues that, as to limitations of claims 8–10, Kerr “discloses business registration via administrative interface including use of identifying location by image recognition of a user’s photo to determine location as a unique identifier corresponding to the business asset.” Pet. 59–60 (citing Ex. 1005 ¶¶ 136–138). In addition, Petitioner argues that “Sehn discloses recognition of brands including digitized names and logos in images to request information,” corresponding to further limitations in claims 8–10. Pet. 60 (citing Ex. 1008, 5:33–49).

As to the reason for combining the identified teachings of Kerr, Sehn, and Adharapurapu (Alcatel), Petitioner argues (in view of Dr. Goldberg’s unchallenged testimony):

POSITA would have found it obvious to incorporate Kerr’s registration, and Sehn’s teaching for recognizing brand names and logos, for the benefits in administrative level control and access (*see supra*, § XI(A)) in consideration of additional identifiers, and Kerr’s photo recognition to determine location associated with business to enhance subject user experience, into Alcatel as modified, to incorporate user-provided information sources, and/or to diversify user circumstances in consideration for tailored content provision.

Pet. 60 (citing Ex. 1002 ¶¶ 217–220). Further, Petitioner argues that a person of ordinary skill in the art would have incorporated Felt (Verizon)’s

¹¹ Petitioner contends that the identified disclosure of “brand asset[s]” in Kerr “otherwise render obvious specific names, logos, designs as unpatentability distinct under the printed matter doctrine.” Pet. 59 (citing *Praxair Distrib., Inc. v. Mallinckrodt Hosp. Prods. IP Ltd.*, 890 F.3d 1024, 1031–32 (Fed. Cir. 2018)).

teachings into Adharapurapu (Alcatel), for the reasons addressed above (in Ground 9), which are supported by the unchallenged testimony of Dr. Goldberg. *Id.* at 58–59 (citing Ex. 1002 ¶¶ 214–216).

Disputing Petitioner’s position in Ground 11, Patent Owner (PO Resp. 37) refers to its arguments (addressed above in regard to Ground 7) alleging that Adharapurapu (Alcatel) fails to teach limitations 1(c)(ii) and 1(h) of base claim 1 (from which claims 7–10 depend) (*id.* at 30–32, §§ V.C.1(a), (b)) and that there is no reason to combine Adharapurapu (Alcatel) with Kerr (*id.* at 33–34, § V.C.2).

For the reasons addressed above (regarding Ground 7), we disagree with Patent Owner’s arguments. Further, Petitioner’s arguments, identified above, which rely upon the unchallenged testimony of Dr. Goldberg, also articulate sufficient reasons for combining Adharapurapu (Alcatel), Kerr, Felt (Verizon), and Sehn.

Finally, Patent Owner argues that Muhire is non-analogous art. *See* PO Resp. 37. However, Petitioner relies upon Muhire in an alternative combination, under Ground 11, which is not addressed herein.

In view of the parties’ arguments and the record evidence, including the unchallenged testimony of Dr. Goldberg, we determine that Petitioner sufficiently establishes the unpatentability of claims 7–10 in view of Adharapurapu (Alcatel), Kerr, Felt (Verizon), and Sehn, as stated in Ground 11.

4. *Claims 28 and 29 Allegedly Anticipated
by Adharapurapu (Alcatel)
(Ground 12)*

a. *Allegations Regarding Claim 28*

We address the parties' arguments, as to the identified limitations, below. In view of the evidence of record (including the unchallenged testimony of Dr. Goldberg), we determine that Petitioner sufficiently demonstrates the unpatentability of claim 28. *See* Pet. 60–63; Ex. 1002 ¶¶ 221–228.

28. *[Preamble] A method comprising:*

*[28(a)] registering asset data, wherein registering
the asset data comprises at least one of the following:*

*[28(a)(i)] registering a first geolocation
associated with one of the following:*

[28(a)(i)(1)] a physical asset, and

[28(a)(i)(2)] a virtual asset;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches claim 28's preamble and limitation 28(a) (including subparts 28(a)(i) and 28(a)(i)(1)):

Alcatel discloses a method to include registering asset data, including first geolocation, as recited. *See, e.g.,* Alcatel, ¶¶ [0002], [0004], [0007], [0015]–[0018], [0021], [0022]. For example, Alcatel discloses content delivery based on requirements from the advertiser/publishers (*id.*, ¶¶ [0017], [0019]–[0022]), and expressly bases such requirements on the geolocation of base stations in communication with consumers' mobile devices (phones). *Id.*, [0017] (base station near road of interest), [0022], FIG. 3. Alcatel's base stations themselves are physical assets and concern relevant geolocations of interest, and other physical assets, like restaurants R1, R2, (*id.*, ¶¶ [0015], [0016], [0021], FIG. 3), and Alcatel also discloses

that mobile devices are registered at each base station 105, and registered by subscribing to the service. Alcatel, ¶¶[0015], [0018]. [Ex. 1002], ¶ 222.

Pet. 61. Petitioner also relies upon its “[e]vidence and arguments concerning Alcatel as to claim 1,” e.g., Ground 7. *Id.* at 60.

In disputing that Adharapurapu (Alcatel) teaches the identified limitations, Patent Owner argues:

First, the term “register” only appears in the application twice in paragraph 0018. In that paragraph, “register” is used for “tracker base stations in every location to tracks the mobile device. See Exh. 1009, ¶0018. “The mobile service provider network 103 has a mobility manager 104 which keeps track of location and direction of all the mobile devices 107 through base stations, where the subscriber has enabled the content delivery based on direction of mobility service.” Exh. 1009, ¶0015. Content deliver is BASED ON DIRECTION. When all the claim elements are viewed together, delivery of content is based upon location is required in these elements of the ’620 patent, not direction.

PO Resp. 39–40.

To the contrary, as part of delivering content — based upon direction of movement of a mobile device — Adharapurapu (Alcatel) employs correlations established between particular geolocations (such as for base stations, as disclosed in the reference) and particular related physical assets, such as restaurants, i.e., the subject matter that Petitioner (Pet. 61) identifies as “registering” “geolocation[s]” associated with “physical asset[s].” See Ex. 1009 ¶¶ 15–20, Fig. 3. Further, as stated in Petitioner’s Reply, “Adharapurapu’s content delivery is based on requirements of base station and related geolocations, which concern relevant geolocations of interest, such as physical assets of restaurants R1 and R2.” Pet. Reply 24 (citing Ex. 1009 ¶¶ 15–17, 21).

In view of the foregoing, Petitioner adequately establishes that Adharapurapu (Alcatel) teaches claim 28's preamble and limitation 28(a) (including subparts 28(a)(i) and 28(a)(i)(1)).

[28(b)] receiving media content to be associated with at least one registered asset;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches limitation 28(b), stating that the reference “discloses receiving media content as recited, at least from publishers,” pointing out that “subscriber reception of media would follow with reception of media into storage.” Pet. 61 (citing Ex. 1002 ¶ 223; Ex. 1009 ¶¶ 2, 16, 17, 20–22).

Purporting to dispute the sufficiency of Adharapurapu (Alcatel), in teaching limitation 28(b), Patent Owner argues that “[t]he Petition relies on the same paragraphs in Adharapurapu as for the previous element and has failed to specifically point out where this limitation is met in Adharapurapu.” PO Resp. 40.

We disagree with Patent Owner's position that the Petition does not adequately identify the relevant disclosure in the reference, which refers explicitly to “content publishers” in, e.g., paragraphs 2, 16, 17, and 21, and also refers to the provision of media content throughout the portions cited in the Petition (page 61). *See* Ex. 1009 ¶¶ 2, 16, 17, 20–22; *see also* Pet. Reply 23 (citing Ex. 1009 ¶¶ 2, 7, 17).

In view of the foregoing, and having considered the parties' arguments and the evidence of record, we determine that Petitioner adequately establishes that Adharapurapu (Alcatel) teaches limitation 28(b).

[28(c)] specifying a plurality of rules for delivering the media content, wherein specifying the plurality of rules comprises specifying:

[28(c)(i)] a first delivery rule associated with at least one element of profile data corresponding with a recipient of the media content, and

[28(c)(ii)] a second delivery rule associated with a second geolocation at which the recipient is tracked;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches limitations 28(c) (and its subparts 28(c)(i) and 28(c)(ii)):

Alcatel discloses specifying rules for selecting content for delivery at least by its rules processor. [Ex. 1002], ¶ 224; e.g., Alcatel, ¶¶[0017] (“rules processor 204 contains a set of rules for delivery of content. These rules are defined by the mobile service provider based on the content publisher's requirement. The content publishers can specify their requirements for content and send it along with the content to the mobile service provider network 103.”). Alcatel discusses publishers providing content and requirements, and service providers specifying rules based on the publisher specifications. *Id.*; [Ex. 1002], ¶ 224.

Alcatel discloses a content delivery rule as recited, by consumer subscription/enablement, and considers subscription/enabled status when determining when/how to deliver content. Alcatel, ¶¶[0015], [0022]; [Ex. 1002], ¶ 225. Alcatel discloses a second delivery rule associated with a second geolocation as recited by its ongoing location-based services. E.g., Alcatel, ¶¶[0018], [0020]–[0022].

Pet. 61–62.

Disputing Petitioner's position, Patent Owner argues that Adharapurapu (Alcatel) does not teach limitation 28(c)(ii). *See* PO

Resp. 41. Patent Owner relies upon same argument discussed above, regarding Ground 7, to the effect that the reference does not teach limitation 1(c)(ii) of claim 1, because it does not teach the recited “second geolocation.” *See id.* at 30–32, 41.

In addition, Patent Owner argues that the disclosure of Adharapurapu (Alcatel) fails to teach limitation 28(c)(ii)’s recited features of “the recipient” being “tracked” and the “second geolocation at which the recipient is tracked.” *See* PO Resp. 41–42 (citing Ex. 1009 ¶¶ 17, 18). Patent Owner argues that Adharapurapu (Alcatel) instead discloses a content delivery rule that is “based upon the location of the tracker base station and sends to all the mobile devices that are in the vicinity” and that, rather than “track[ing]” the recipient, the reference merely infers the recipient’s location. *Id.* at 41 (citing Ex. 1009 ¶¶ 17, 18).

For the reasons discussed above (regarding limitation 1(c)(ii) in Ground 7), we determine that Adharapurapu (Alcatel) sufficiently teaches the recited “second geolocation” of limitation 28(c)(ii). *See also* Pet. Reply 46–47 (citing Ex. 1002 ¶ 188; Ex. 1009 ¶¶ 18, 20–22, Fig. 3), 61–62 (citing Ex. 1002 ¶¶ 224–225; Ex. 1009 ¶¶ 15, 17, 18, 20–22, Fig. 3).

In addition, Petitioner sufficiently shows that Adharapurapu (Alcatel) teaches the recipient being “tracked” at the “second geolocation,” per limitation 28(c)(ii). As Petitioner points out (Pet. Reply 62), the recited “track[ing]” feature is shown in the example of delivery of content associated with a gift shop, “[w]hen a mobile device 107 travels in the direction defined by” progress among particular base stations (from base station A, toward base station D, and then toward base station C, of Figure 3) toward “gift shop G.” Ex. 1009 ¶ 20; *see also id.* ¶ 15 (“The mobile

service provider network 103 has a mobility manager 104 which keeps track of location and direction of all the mobile devices 107 through base stations, where the subscriber has enabled the content delivery based on direction of mobility service.”)

Still further, the “track[ing]” performed in embodiments of Adharapurapu (Alcatel) is also manifest in Petitioner’s citation (*see* Pet. 62) to paragraph 18 thereof, which states:

Information about the movement of the mobile device 107 is tracked by the tracker base stations 105. As the mobile device 107 keeps moving from one location to another, tracker base stations in every location register the mobile device. The location of the tracker base stations 105 which register the mobile device 107 gives the location and direction of movement of the mobile device 107. The location of the tracker base stations is then sent to a mobility manager 104 of the mobile service provider network 103 which then sends it to the mobility history database 203 of the tracker module 101. A path illustrating the location and direction of movement of a subscribed mobile device 107 user can be inferred drawn [sic] using the location of tracker base stations stored in the mobility history database 203. In another embodiment, the tracker module 101 receives Global Positioning System (GPS) co-ordinates from the mobile device 107 at regular intervals, which is stored in the mobile history database 203. A path illustrating the location and direction of movement of a subscribed mobile device 107 user can be drawn using successive GPS co-ordinates of the subscribed mobile device 107 stored in the mobility history database 203.

Ex. 1009 ¶ 18. Each of the reference’s series of locations determined with the “tracker base stations” and with the GPS technique teaches the recited “second geolocation at which the recipient is tracked” of limitation 1(c)(ii).

In view of the foregoing, and having considered the parties’ arguments and the evidence of record, we determine that Petitioner

adequately establishes that Adharapurapu (Alcatel) teaches limitation 28(c) (including its subparts).

[28(d)] receiving an indication that the recipient is proximate to the first geolocation, comparing the first delivery rule and the at least one element of profile data associated with the recipient;

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches limitation 28(d):

Alcatel discloses receiving indication of proximity and comparing as recited. *E.g.*, Alcatel, ¶¶[0015], [0017], [0020]–[0022]; [Ex. 1002], ¶226. For example, Alcatel receives location information from the mobile device traveling along, and determines proximity to a first geolocation such as near a closed road 6AM–3PM. Alcatel, ¶[0017]. Alcatel discloses that indication of proximity to base stations occurs at each station. *Id.*, ¶¶[0018] (each station registers; GPS), [0020]; [Ex. 1002], ¶ 226. Alcatel also discloses comparing the profile data as subscription/enablement, Alcatel, ¶[0022] (checks); [Ex. 1002], ¶ 226.

Pet. 62–63.

Disputing Petitioner’s position, regarding limitation 28(d), Patent Owner argues that “Adharapurapu does not determine proximity to a closed road”; rather, “[t]he only location known close to the closed road is a base station.” PO Resp. 42. In addition, Patent Owner argues that the reference’s “base station sends out the message to the mobile devices it is in contact with (not based on a geofenced location).” *Id.*

Yet, contrary to Patent Owner’s remark that Adharapurapu (Alcatel)’s technology “does not determine proximity to a closed road” (PO Resp. 42), the above discussion of limitation 28(c) (and its subparts) confirms that the reference discloses continually monitoring the location of the mobile device.

See Ex. 1009 ¶ 18 (“Information about the movement of the mobile device 107 is tracked by the tracker base stations 105. As the mobile device 107 keeps moving from one location to another, tracker base stations in every location register the mobile device.”); *see also* Pet. Reply 26.

Further, contrary to Patent Owner’s contention that Adharapurapu (Alcatel)’s “base station sends out the message to the mobile devices it is in contact with (not based on a geofenced location)” (PO Resp. 42), the identified example in the reference discloses sending the road closure message to “all the mobile devices that are *in the vicinity of the road*” that are subscribers to the “content delivery based on mobility service.”

Ex. 1009 ¶ 17 (emphasis added); *see also* Pet. Reply 26. The Petition cites additional examples from Adharapurapu (Alcatel) of location-based delivery of content for recipients that have subscribed to the disclosed service (i.e., satisfying limitation 28(d)’s recited “element of profile data associated with the recipient”). *See* Pet. 62–63 (citing Ex. 1002 ¶ 226; Ex. 1009 ¶¶ 15, 17, 18, 20–22).

In view of the foregoing, and having considered the parties’ arguments and the evidence of record, we determine that Petitioner sufficiently establishes that Adharapurapu (Alcatel) teaches limitation 28(d).

[28(e)] tracking a location associated with the recipient in response to a matching comparison;

[28(f)] comparing the second delivery rule and the location in order to determine whether the recipient is proximate to the second geolocation; and

[28(g)] delivering, upon fulfillment of the first delivery rule and the second delivery rule, the media content to the recipient.

With the support of the unchallenged testimony of Dr. Goldberg, Petitioner argues that Adharapurapu (Alcatel) teaches limitations 28(e), 28(f), and 28(g):

Alcatel discloses tracking a location associated with the recipient in response to a matching comparison at least by noting the same. Alcatel, ¶¶[0015], [0022]. Alcatel discloses checking whether subscription/enabled tracking exists for each user, and that for non-subscribers/disabled, “location information of the mobile device 107 is not noted.” *Id.*, ¶[0022]. With matching comparison of subscription/enabled, Alcatel tracks user location by noting the same and processing content delivery. *Id.*; [Ex. 1002], ¶ 227. Alcatel continues to determine content according to the location received, and when comparison reveals proximity to the second geolocation corresponding to a route of interest as fulfilling the second rule, e.g., A, D, C base stations finishing with C (Alcatel, ¶[0020]), Alcatel delivers content as recited. [Ex. 1002], ¶ 228.

Pet. 63.

Patent Owner’s only argument, regarding these limitations, concerns limitation 28(f), for which Patent Owner relies on its argument (addressed above) that Adharapurapu (Alcatel) fails to teach limitation 28(c)(ii) — i.e., the recitation of “a second delivery rule associated with a second geolocation at which the recipient is tracked.” *See* PO Resp. 42. Contrary to Patent Owner’s position, for the reasons discussed above (regarding limitation 28(c)(ii)), we determine that Adharapurapu (Alcatel) sufficiently teaches

limitation 28(c)(ii). Thus, Patent Owner’s arguments do not diminish Petitioner’s position that Adharapurapu (Alcatel) teaches limitation 28(f).

In view of Petitioner’s arguments and the record evidence, we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches limitation 28(f).

Having considered the parties’ arguments and the evidence of record (including the unchallenged testimony of Dr. Goldberg), we determine that Petitioner has sufficiently shown that the combination of Adharapurapu (Alcatel) teaches limitations 28(e), 28(f), and 28(g).

b. Allegations Regarding Claim 29

Independent claim 29 is drawn to a “computer-readable medium comprising a set of instructions” for performing a method that is similar to the method recited in claim 28.

In view of the record evidence, including the unchallenged testimony of Dr. Goldberg, we determine that Petitioner sufficiently establishes that Adharapurapu (Alcatel) teaches all the limitations of claim 29.

A notable additional feature of claim 29 is the recitation of a “period of time” in the first and second delivery rules (limitations 29(c)(i) and 29(c)(ii)):

[29(c)(i)] a first delivery rule associated with *a period of time*, and

[29(c)(ii)] a second delivery rule associated with a second geolocation at which a recipient is tracked *during the period of time*;

Ex. 1001, 40:47–51 (emphasis added).

In addressing whether Adharapurapu (Alcatel) teaches these limitations, Petitioner points out (in reliance on unchallenged testimony of

Dr. Goldberg) that the reference discloses the use of particular time period restrictions for the dissemination of certain content to mobile devices:

Alcatel discloses specific time periods 6AM–3PM for road closures, 900–1800, 800–2130, and 00–2359 hrs for various store, restaurant, and event examples. Alcatel, ¶¶[0017], [0020]; [Ex. 1002], ¶ 230. Alcatel likewise discloses its proximity rule applied at this time period as a second rule, where relevant travel to trigger the particular course to the gift shop, restaurant, or Christmas event, requires reaching the final base station as the second geolocation within the relevant hours. *Id.*, ¶¶[0020], [Ex. 1002], ¶ 230.

Pet. 64; *see also id.* (arguing that Adharapurapu (Alcatel) teaches limitation 28(e)) (citing Ex. 1002 ¶ 231; Ex. 1009 ¶ 20).

Patent Owner disputes that Adharapurapu (Alcatel) teaches the limitations of claim 29, relying entirely upon chains of cross-references to arguments presented earlier in the Response that Patent Owner provides with respect to limitations of claims 1 and 28 (all of which are addressed above). *See* PO Resp. 43–44. For the reasons addressed above, regarding each of Patent Owner’s cross-referenced arguments, we determine that Patent Owner does not refute Petitioner’s allegations as to claim 29.

In view of Petitioner’s arguments and evidence regarding claim 29 (including the unchallenged testimony of Dr. Goldberg), we determine that Petitioner sufficiently demonstrates that Adharapurapu (Alcatel) teaches each of the limitations of claim 29 and we adopt Petitioner’s arguments and cited evidence as to claim 29 as our own determination and basis. *See* Pet. 63–64; Ex. 1002 ¶¶ 221–231.

5. *Remaining Grounds*

As identified above (*see supra* § I(E)), Petitioner presents several alternative grounds alleging the unpatentability of various claims of the '620 patent. Because of our determination that Petitioner establishes, by a preponderance of the evidence, that each of the Challenged Claims (claims 1–29) is unpatentable (for the reasons addressed above), we do not address alternate challenges to any of the claims. *See SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1359 (2018) (holding that a petitioner “is entitled to a final written decision addressing all of the claims it has challenged”); *see also Schwendimann v. Neenah, Inc.*, 82 F.4th 1371, 1377 (Fed. Cir. 2023) (“Ultimately, the Board found Kronzer in view of Oez rendered the Challenged Claims obvious. Because of this finding, the Board did not address the other grounds [Petitioner] asserted against the Challenged Claims.” (citations omitted)); *Boston Sci. Scimed, Inc. v. Cook Grp. Inc.*, 809 F. App’x 984, 990 (Fed. Cir. 2020) (nonprecedential) (stating that the “Board need not address issues that are not necessary to the resolution of the proceeding,” such as “alternative arguments with respect to claims [the Board] found unpatentable on other grounds”).

III. MOTION TO EXCLUDE

Patent Owner contends that Petitioner's Expert Declaration of Dr. Steven H. Goldberg (Ex. 1002, "Declaration") should be excluded under Federal Rules of Evidence 402 and 403 because paragraphs 90–91 and 239–420¹² of the Declaration refer to a patent that is not at issue in the current proceeding — specifically, these paragraphs relate to US Patent No. 10,692,108 ("the '108 patent"), which is the subject of another proceeding pending before the Board, IPR2023-00919. PO Mot. 1.

Patent Owner argues that "Dr. Goldberg's Declaration improperly states that both the '620 and '108 patents are the 'Patents-In-Suit.'" PO Mot. 1 (citing Ex. 1002 at 4). According to Patent Owner, "[p]lacing such testimony referring to multiple 'Patents-in-Suit' in the record for this IPR is prejudicial and irrelevant." *Id.*

Patent Owner takes issue with the Declaration's statement that "a POSITA would have been capable of understanding the Patents-in-Suit and the prior art references discussed herein." PO Mot. 1 (citing Ex. 1002 at 13). Thus, Patent Owner contends, Dr. Goldberg's "opinions are not based on the '620 patent only, despite it being the only patent at issue." *Id.*

Further, Patent Owner contends that it is unclear which proceeding is identified in statements in the Declaration referring to "this Petition." PO Mot. 1. Patent Owner argues: "It is not the Board's job or the PO's job to discern which part of 'this declaration' is used for which one of the 'Patents-in-Suit,' and which IPR is the correct IPR." *Id.* at 2. Patent Owner

¹² Patent Owner's Motion to Exclude, in the second paragraph thereof, misidentifies the allegedly improper paragraphs as paragraphs 88–89 and 93–238. PO Mot. 1.

argues that the possibility of confusing the distinct patents and IPR proceedings is evidenced by the parties' agreement to address each proceeding separately, in the oral hearing session that concerned both IPR2023-00918 and IPR2023-00919. *Id.* at 2.

Petitioner filed an Opposition to Patent Owner's Motion to Exclude (*see* Pet. Opp.), which Patent Owner addressed in a Reply brief (*see* PO Mot. Reply).

Because the allegedly offending portions of the Declaration do not give rise to the alleged confusion or prejudice, we deny Patent Owner's Motion to Exclude.

The Board is mindful that IPR2023-00918 and IPR2023-00919 are distinct proceedings, each relating to the patentability of a single patent. Neither the Board nor the parties has identified any difficulties in determining which portions of the Declaration apply to the issues involved in the present proceeding, IPR2023-00918. Further, Patent Owner has not identified any deficiency in the opinions expressed in the Declaration, or the basis thereof, that might have arisen from the presence of the allegedly offending paragraphs. In addition, Patent Owner has not articulated how the allegedly offending paragraphs of the Declaration might have created any prejudice.

In view of the foregoing, we deny Patent Owner's Motion to Exclude.

IV. CONCLUSION

After considering the evidence and arguments presented in the current record, we determine that Petitioner has demonstrated, by a preponderance of the evidence, the unpatentability of claims 1–29 of the '620 patent.

Our conclusions regarding the Challenged Claims are summarized below:

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
28, 29	102 ¹³	Felt (Verizon)		
28, 29	103 ¹⁴	Felt (Verizon), Kerr and/or Geer		
1–6, 11–27	103 ¹⁵	Felt (Verizon), Thaper (Cellco)		
1–6, 11–27	103 ¹⁶	Felt (Verizon), Muhire		
1–6, 11–27	103 ¹⁷	Felt (Verizon), Kerr		
1–6, 11–27	103 ¹⁸	Felt (Verizon), Muhire, Kerr		
7–10	103 ¹⁹	Felt (Verizon), Kerr, Sehn		
7–10	103 ²⁰	Felt (Verizon), Kerr, Muhire, Sehn		
1, 11–27	103	Adharapurapu (Alcatel), Kerr	1, 11–27	
1, 11–27	103 ²¹	Adharapurapu, (Alcatel), Kerr, Muhire		

¹³ As explained above, we do not reach this alternative ground.

¹⁴ As explained above, we do not reach this alternative ground.

¹⁵ As explained above, we do not reach this alternative ground.

¹⁶ As explained above, we do not reach this alternative ground.

¹⁷ As explained above, we do not reach this alternative ground.

¹⁸ As explained above, we do not reach this alternative ground.

¹⁹ As explained above, we do not reach this alternative ground.

²⁰ As explained above, we do not reach this alternative ground.

²¹ As explained above, we do not reach this alternative ground.

Claims	35 U.S.C. §	Reference(s)/Basis	Claims Shown Unpatentable	Claims Not Shown Unpatentable
1–6, 22–27	103	Adharapurapu (Alcatel), Kerr, Felt (Verizon)	1–6, 22–27	
1–6, 22–27	103 ²²	Adharapurapu (Alcatel), Kerr, Muhire, Felt (Verizon)		
7–10	103	Adharapurapu (Alcatel), Kerr, Felt (Verizon), Sehn	7–10	
7–10	103 ²³	Adharapurapu (Alcatel), Kerr, Muhire, Felt (Verizon), Sehn		
28, 29	102	Adharapurapu (Alcatel)	28, 29	
28, 29	103 ²⁴	Adharapurapu (Alcatel), Kerr and/or Geer		
Overall Outcome			1–29	

V. ORDER

Accordingly, it is:

ORDERED that claims 1–29 of U.S. Patent 10,621,620 B2 have been shown to be unpatentable;

FURTHER ORDERED that Patent Owner’s Motion to Exclude (Paper 19) is denied;

²² As explained above, we do not reach this alternative ground.

²³ As explained above, we do not reach this alternative ground.

²⁴ As explained above, we do not reach this alternative ground.

FURTHER ORDERED that, because this a Final Written Decision, parties to this proceeding seeking judicial review of this Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2; and

FURTHER ORDERED that any party seeking judicial review must comply with the notice and service requirements of 37 C.F.R. § 90.2.²⁵

²⁵ Should Patent Owner wish to pursue amendment of the Challenged Claims in a reissue or reexamination proceeding subsequent to the issuance of this Decision, we draw Patent Owner's attention to the April 2019 *Notice Regarding Options for Amendments by Patent Owner Through Reissue or Reexamination During a Pending AIA Trial Proceeding*. See 84 Fed. Reg. 16,654 (Apr. 22, 2019). If Patent Owner chooses to file a reissue application or a request for reexamination of the challenged patent, we remind Patent Owner of its continuing obligation to notify the Board of any such related matters in updated mandatory notices. See 37 C.F.R. § 42.8(a)(3), (b)(2).

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