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Paper No. 10
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner,

v.

UNILOC LUXEMBOURG S.A.,
Patent Owner.

Case IPR2017-01993
Patent 9,414,199 B2

Before MIRIAM L. QUINN, KERRY BEGLEY, and CHARLES J. BOUDREAU, *Administrative Patent Judges*.

BEGLEY, *Administrative Patent Judge*.

DECISION
Institution of *Inter Partes* Review
37 C.F.R. § 42.108

Apple Inc. ("Petitioner") filed a Petition requesting *inter partes* review of claims 1–5 of U.S. Patent No. 9,414,199 B2 (Ex. 1001, "'199 patent"). Paper 1 ("Pet."). Uniloc Luxembourg S.A. ("Patent Owner") filed a Preliminary Response. Paper 7 ("Prelim. Resp.").

Pursuant to 35 U.S.C. § 314(a), an *inter partes* review may not be instituted unless "the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." For the reasons given below, we determine Petitioner has demonstrated a reasonable likelihood that it would prevail in establishing that claims 1–5 of the '199 patent are unpatentable. We institute an *inter partes* review of these claims on certain asserted grounds of unpatentability.

I. BACKGROUND

A. THE '199 PATENT

1. Disclosure

The '199 patent is directed to methods and systems for delivery of information, such as advertisements, from a server to user devices based on "the current location" as well as "predicted future locations" of the devices. Ex. 1001, [57], 1:30–33, 2:39, 3:10–19. The server gathers location information from user devices "[o]ver time" and "uses the gathered location information to periodically predict future locations of the devices." *Id.* at 1:33–36, 3:15–19. Upon determining that a "device is likely to be in one [or more] predetermined locations within [a] predetermined maximum amount of time with at least the predetermined minimum likelihood," the server performs one or more actions, such as "sending a promotion or advertisement" to the device. *Id.* at 1:37–46. For example, a department store manager seeking to send a promotional code to anyone who is at least 50% likely to visit a competing store within one hour can specify the "locations of all competing stores within a five-mile radius" as the "one or more predetermined locations," "50% as the predetermined minimum likelihood," and "one hour as the predetermined maximum amount of time."

Id. at 1:52–61. "The manager can also specify days and times at which the actions are applicable," for example, during store hours. *Id.* at 1:61–64.

In a disclosed embodiment, server 106 maintains location data record 300 for user device 102A, which includes location reports 304 identifying location 306 of the device at various dates and times. *Id.* at 4:22–29, Fig. 3. Server 106 also stores location-based action records 400, each with trigger event 402. *Id.* at 4:34–42. Trigger event 402 specifies, "as a condition for performance of action 404 . . . , that user device 102A must be determined to be at least as likely as" predetermined threshold likelihood 502 to be at "any of a number of locations within" threshold time 504, "a predetermined amount of time in the future." *Id.* at 4:44–58.

Server 106, in processing location-based action record 400, generally uses two predictive patterns to determine "the likelihood of user device 102A . . . be[ing] in a particular place at a particular time." *Id.* at 5:4–7, 5:15–19. Specifically, server 106 analyzes location data record 300 of user device 102A for "location patterns" associated with: (1) "times of day, days of the week, days of the month, and days of the year," and (2) "other locations of user device 102A." *Id.* at 5:15–22, 5:32–34. If trigger event 402 of location-based action record 400 is satisfied, server 106 performs action 404, such as sending a message to user device 102A. *Id.* at 4:59–64, 6:8–12; *see id.* at 4:29–33.

2. Prosecution History

During prosecution of the '199 patent, the Examiner issued a Final Rejection of claims 1–5—as subsequently issued—under 35 U.S.C. § 103 over U.S. Patent Application Publication Nos. 2013/0036165 A1 ("Tseng") and 2005/0249175 A1 ("Nasu"). Ex. 1002, 55–56, 70–72. Patent Owner appealed the rejection to the Board. *Id.* at 46.

On June 1, 2016, the Board reversed the Examiner's rejection. *Id.* at 19–24. The Board explained that "in the context of" claim 1 and the specification, the term "predetermined likelihood" "refers to the probability or the percentage likelihood that a mobile device will be at a predicted location in the future." *Id.* at 23. The Board disagreed with the Examiner that the term could "be broadly interpreted to encompass" Tseng's "interest value" and "relevance score," because—in contrast to the claimed "predetermined likelihood"—these elements relate to a user's personal interest in and preference for different categories of items. *Id.* at 22–24, 43.

The Examiner then issued a Notice of Allowability. *Id.* at 4–8.

B. Illustrative Claim

Challenged claim 1, reproduced below, is the sole independent claim of the '199 patent and is illustrative of the recited subject matter:

> 1. A method for delivering information to two or more user devices, the method comprising:
>
> retrieving the information from one or more data records that associate the information with one or more predetermined locations, a predetermined maximum amount of time, a predetermined likelihood, and one or more predetermined actions; and
>
> for each of the two or more user devices:
>
> predicting whether the user device will be at any of the one or more predetermined locations within the predetermined maximum amount of time with at least the predetermined likelihood; and
>
> in response to the predicting that the user device will be at any of the one or more predetermined locations within the predetermined maximum amount of time with at least the predetermined likelihood, performing the one or more predetermined actions;
>
> wherein at least one of the actions includes delivering the information to the user device.

Ex. 1001, 8:7–25. We refer to the steps of claim 1 as the retrieving step, the predicting step, and the performing step, respectively.

C. Evidence of Record

The Petition relies upon U.S. Patent Application Publication Nos.:

2009/0125321 A1 (published May 14, 2009) (Ex. 1007, "Charlebois");

2010/0082397 A1 (published Apr. 1, 2010) (Ex. 1004, "Blegen");

2010/0151882 A1 (published June 17, 2010) (Ex. 1008, "Gillies");

2012/0089465 A1 (published Apr. 12, 2012) (Ex. 1009, "Froloff");

2012/0226554 A1 (published Sept. 6, 2012) (Ex. 1006, "Schmidt"); and

2012/0259704 A1 (published Oct. 11, 2012) (Ex. 1005, "Monteverde").

In addition, Petitioner supports its contentions with the Declaration of Gabriel Robins, Ph.D. (Ex. 1003).

D. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability. Pet. 3.

Challenged Claims	Basis	References
1, 2	§ 103	Blegen and Monteverde
3–5	§ 103	Blegen, Monteverde, and Schmidt
1–5	§ 103	Charlebois and Gillies
1–5	§ 103	Charlebois, Gillies, and Froloff

II. ANALYSIS

A. Claim Construction

The Board interprets claim terms of an unexpired patent using the "broadest reasonable construction in light of the specification of the patent." 37 C.F.R. § 42.100(b); *see Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). We presume a claim term carries its "ordinary and customary meaning," which is the meaning "the term would have to a person of ordinary skill in the art" at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) (citation omitted).

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