

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

eBAY INC.,
Petitioner,

v.

LOCATA LBS LLC,
Patent Owner.

Case IPR2014-00585
Patent 6,259,381 B1

Before MITCHELL G. WEATHERLY, MIRIAM L. QUINN, and
JO-ANNE M. KOKOSKI, *Administrative Patent Judges*.

KOKOSKI, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

eBay Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) to institute an *inter partes* review of claims 1–12 of U.S. Patent No. 6,259,381 B1 (Ex. 1001, “the ’381 patent”). On October 9, 2014, we instituted an *inter partes* review of claims 1–12 based on our determination that the information presented in the Petition demonstrated that there was a reasonable likelihood that Petitioner would prevail in challenging claims 1–12 as unpatentable under 35 U.S.C. § 103 as obvious over the combination of Fast¹ and Buss.² Paper 7 (“Dec. on Inst.”).

Locata LBS LLC (“Patent Owner”) filed a Patent Owner Response (Paper 16, “PO Resp.”). Petitioner filed a Reply (Paper 22, “Reply”).

An oral hearing was held on June 23, 2015. A transcript of the hearing is included in the record. Paper 29.

We have jurisdiction under 35 U.S.C. § 6(b). This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–12 of the ’381 patent are unpatentable.

A. *The ’381 Patent*

The ’381 patent, titled “Method of Triggering an Event,” is directed to a method for triggering an event in a roving apparatus when the position of the roving apparatus is within a predetermined area, and at least one specified triggering criterion is met. Ex. 1001, Abstract. According to the ’381 patent, “the term ‘roving’ is used to indicate that the apparatus may

¹ Fast, U.S. Patent No. 5,497,149, issued March 5, 1996 (Ex. 1004).

² Buss et al., U.S. Patent No. 5,539,395, issued July 23, 1996 (Ex. 1008).

wander about without necessarily having a definite origin, route, or destination.” *Id.* at 1:6–8.

The ’381 patent describes a method that includes associating events with a locality, specifying triggering prerequisites for each event, and “triggering an event if (a) the roving apparatus is within a predetermined proximity of the locality, and (b) the at least one triggering prerequisite specified for the event is met.” *Id.* at 1:45–52. Examples of triggering prerequisites include “direction of travel of the roving apparatus, position of the roving apparatus relative to the locality, increase in distance from the locality, time, day, date, temperature, password, or any other criteria.” *Id.* at 1:53–57.

Claims 1 and 7 of the ’381 patent are independent. Claims 2–6 depend from claim 1, which is reproduced below:

1. A method of triggering an event in a roving apparatus, said method comprising the steps of:
 - a) defining a plurality of predetermined areas;
 - b) associating one or more events with each of said predetermined areas;
 - c) specifying at least one triggering criteria for each of said one or more events;
 - d) calculating the position of (the) said roving apparatus;
 - e) (evaluating) performing an evaluation of the status and position of (the) said roving apparatus in comparison to said at least one triggering criteria and the position of said predetermined areas; and
 - i. if (the) said evaluation determines that the roving apparatus is outside all predetermined areas, the roving apparatus maintains (said calculating) performing the evaluation of the

status and position of the roving apparatus, without triggering an event;

- ii. if (the) said evaluation determines the roving apparatus is within one of (the) said predetermined areas, and said (the) at least one (said) triggering criteria specified for (an) a particular event is met, (the) said particular event is triggered;
- iii. if (the) said evaluation determines the roving apparatus is within (the) an overlapping portion of any overlapping predetermined areas, and (the) said at least one (said) triggering criteria specified for an event is met, events from any of the overlapping predetermined areas may be triggered in accordance with any one of said at least one triggering criteria for said overlapping predetermined areas;

such that there is no requirement to specify triggering criteria for every area which the roving apparatus may traverse.

Ex. 1001, 4:61–5:25.

Claims 8–12 depend from claim 7, which is reproduced below:

- 7. A method of triggering an event in a roving apparatus, the method comprising:
 - a) defining a plurality of predetermined areas, where
 - i. the predetermined areas are irregularly distributed according to predetermined points-of-interest; and
 - ii. some predetermined areas may overlap;
 - b) associating one or more events with each predetermined area;
 - c) specifying at least one triggering criteria for each event;
 - d) calculating the position of the roving apparatus; and
 - e) triggering an event if:

- i. the calculated position of the roving apparatus falls within a predetermined area; and
- ii. the at least one triggering criteria specified for the event is met such that if the calculated position of the roving apparatus is at a position where the predetermined areas overlap, events from any of the overlapping predetermined areas may be triggered in accordance with any one of said triggering criteria of those areas.

Id. at 5:47–67.

II. ANALYSIS

A. *Claim Interpretation*

We interpret claims of an unexpired patent using the “broadest reasonable construction in light of the specification of the patent in which [the claims] appear[.]” 37 C.F.R. § 42.100(b). The Board, however, may not “construe claims during IPR so broadly that its constructions are *unreasonable* under general claim construction principles. . . . ‘[T]he protocol of giving claims their broadest reasonable interpretation . . . does not include giving claims a legally incorrect interpretation.’” *Microsoft Corp. v. Proxyconn, Inc.*, 789 F.3d 1292, 1298 (Fec. Cir. 2015) (citation omitted). “Rather, ‘claims should always be read in light of the specification and teaching in the underlying patent’” and “[e]ven under the broadest reasonable interpretation, the Board’s construction ‘cannot be divorced from the specification and the record evidence.’” *Id.* (citations omitted).

In the Decision on Institution, we interpreted the following claim terms:

Term	Interpretation
“bearing”	“measurement of direction between two points”
“heading”	“direction of travel”

Dec. on Inst. 5–7. The parties do not dispute these interpretations, and we see no reason to modify them in light of the record developed at trial.

B. Level of Ordinary Skill in the Art

Petitioner proposes a particular level of ordinary skill in the art, and Patent Owner disagrees and offers its own definition. Ex. 1009 ¶ 28; Ex. 2003 ¶¶ 17–18. In light of the evidence before us, we find that the references themselves represent the level of ordinary skill in the art, and that we need not explicate it further. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the level of ordinary skill in the art usually is evidenced by the references themselves); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (finding that the Board of Patent Appeals and Interferences did not err in concluding that the level of ordinary skill in the art was best determined by the references of record).

C. Obviousness of Claims 1–12 over Fast and Buss

Petitioner asserts that claims 1–12 are unpatentable under 35 U.S.C. § 103 over the combination of Fast and Buss. Pet. 15–28; Reply 3–14. Petitioner explains how a combination of Fast and Buss allegedly discloses or suggests the claimed subject matter and also relies on the Declaration of Paul F. Reynolds, Jr., Ph.D. (Ex. 1009, “Reynolds Declaration”). Patent Owner disagrees with Petitioner’s assertions and relies on the Declaration of Michael C. Brogioli, Ph.D. (Ex. 2003, “Brogioli Declaration”). PO Resp. 33–56.

To prevail on its patentability challenge, Petitioner must establish facts supporting its challenge by a preponderance of the evidence. 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). A claim is unpatentable under 35 U.S.C. § 103 if the differences between the subject matter sought to be patented and

the prior art are such that the subject matter as a whole would have been obvious to a person having ordinary skill in the art to which the subject matter pertains. *KSR Int'l Co. v. Teleflex, Inc.*, 550 U.S. 398, 406 (2007). Prior art references 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). A party that petitions the Board for a determination of obviousness must show that “a skilled artisan would have been motivated to combine the teachings of the prior art references to achieve the claimed invention, and that the skilled artisan would have had a reasonable expectation of success in doing so.” *Procter & Gamble Co. v. Teva Pharms. USA, Inc.*, 566 F.3d 989, 994 (Fed. Cir. 2009) (citing *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1361 (Fed. Cir. 2007)).

1. *Overview of Fast*

Fast is directed to systems for determining the location of a person or object at predetermined times and in defined situations, within predetermined allowed and disallowed areas. Ex. 1004, 1:8–11. The Fast system comprises a security beacon containing a GPS receiver, a cellular telephone, and a programming/monitoring terminal. *Id.* at 2:47–54. The programming/monitoring terminal is used to create zones on local maps, which can be defined as allowed or disallowed areas. *Id.* at 3:35–41. Zones can include time limitations that define when a person may be in each zone. *Id.* at 4:11–12. Zones are generally “set-up for the regular daily living environment of the wearer” and will “differ from person to person and differ in their application of protecting, observing and restricting a person.” *Id.* at 4:33–36. The programmed zones are downloaded to the security beacon,

and the security beacon can issue warnings if the person wearing it leaves an allowed zone or enters a disallowed zone. *Id.* at 3:41–42, 62–66.

According to Fast, the described system can be used, for example, in the “[e]nforcement of restraining orders relating to maintaining a set distance between two persons.” *Id.* at 7:50–51. In such a situation, both the threatened person and the threatening person wear security beacons, each of which is “programmed to ‘phone’ the other beacon at alternating intervals and request its position.” *Id.* at 7:62–67. When the beacons are determined to be too close to each other, a warning message is sent to both parties indicating that a potential violation has occurred. *Id.* at 7:67–8:3. If the distance between the beacons is not increased within a set period of time, the beacons are “triggered into emergency mode allowing the supervising authority to track one or both the parties.” *Id.* at 8:3–7.

2. *Overview of Buss*

Buss is directed to “the field of information receiving portable devices which use a determined location for presentation of information.” Ex. 1008, 1:9–11. Buss describes a paging system that transmits a messaging signal within a large coverage area that is divided into a “multiplicity of areas.” *Id.* at 2:12–14. The paging system includes a GPS that can identify a location within thirty yards or meters. *Id.* at 2:25–30. Buss states that messages are displayed “if the location signal of the message matches the intended location of the device,” so that “[o]nly messages relevant to the intended location of the user are alerted or displayed to the user.” *Id.* at 3:58–67. Buss further states that “a message signal may only be alerted and displayed if both the intended location of the device matches the location signal and the address of the device matches the predetermined address of the device.”

Id. at 4:24–27. According to Buss, the vicinity restriction can be inhibited, and the receiver can receive messages independent of location. *Id.* at 4:47–52.

3. *Motivation to Combine Fast and Buss*

Petitioner contends that a person having ordinary skill in the art would be motivated to combine the systems described in Fast and Buss because the combined system would ensure the user’s safety, and also “provide the user information concerning points of interest along the user’s path, while filtering messages based on user direction of travel relative to a point of interest.” Pet. 21–22. Petitioner cites Dr. Reynolds’s testimony in support of this contention:

One of ordinary skill in the art would readily recognize the benefits of combining the systems of Fast and Buss. In the combined system, the GPS enabled message display device of Buss would be incorporated into the GPS enabled transmitter beacon of Fast and would trigger events such as alarms and displays based on various triggering conditions that include provisions for time, place, place along path, presence or absence in defined zones or areas, and direction of travel. The combined system would combine the ability to trigger events with consideration for overlapping areas, as in Fast, with the ability to use Buss’s predefined paths, and to focus a range of bearings along that path, to determine whether the user with the mobile device was traveling in a desired direction relative to a particular point of interest. In the combined system, Fast’s consideration for safety gains the advantages of Buss’s support for predetermined paths, which could capture an intended route for a user who is to be kept safe.

Ex. 1009 ¶ 54 (internal citations omitted).

Patent Owner argues that it would not have been obvious to one of ordinary skill in the art to combine the teachings of Fast and Buss because (1) the references are directed to different fields of application and intended

purposes; (2) the systems described in Fast and Buss have different system architectures; and (3) Dr. Reynolds applied an incorrect methodology in his analysis. PO Resp. 35–41.

First, Patent Owner argues that Fast and Buss are directed to different fields of application and intended purposes, despite the fact that both references “generally relate to location-based subject matter.” PO Resp. 35. According to Patent Owner, “the field of application and purpose [of Fast] is providing a security alarm when an object wanders out of fixed zones without regard to the destination or direction,” whereas “the application and purpose [of Buss] is to provide filtered information based on the *intended* location of a user.” *Id.* at 35–36. Patent Owner argues that the system described in Fast “does not need to know or care where the user intends to go” and “has no need to filter large amounts of information since it only looks for zone violations.” *Id.* at 36. Patent Owner overstates the differences between the references and fails to account for their common features. Both references are generally related to using location-based monitoring methods in order to provide specific location-relevant information to a device carried by a user. Specifically, Fast and Buss both describe methods of tracking the location of a device and issuing alerts or messages based on the position of the device relative to predetermined areas. *See* Pet. 15–17, 20–21; Ex. 1004, 4:1–51, 5:67–6:42, 7:36–8:7; Ex. 1008, 3:26–4:46, 6:18–54. Thus, we are not persuaded that the systems in Fast and Buss are so different that a skilled artisan would not have thought to combine them.

Second, Patent Owner argues that Fast and Buss have “fundamentally different system architectures” and adding the features described in Buss to

the Fast beacon “would not make sense, as even *Fast* acknowledges the limitations of the devices ability to support additional features and functionality.” PO Resp. 36. Therefore, according to Patent Owner, “there would have been no technical or commercial need or even desire to add the information filtering features of *Buss* to the security system of *Fast*.” *Id.* (citing Ex. 2003 ¶ 87). As Petitioner points out, however, an “obviousness analysis does not require bodily incorporation of one reference into another,” and the appropriate inquiry is whether a person skilled in the art “would have seen an apparent reason to combine the point of interest notification functionality of *Buss* into *Fast*.” Reply 9–10 (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)). Petitioner has explained sufficiently why a person of ordinary skill in the art would have understood it to be beneficial to incorporate the point-of-interest notification functionality described in *Buss* into the system described in *Fast* and would have had a reasonable expectation the combination would be successful. *See* Pet. 21–22 (citing Ex. 1009 ¶¶ 54–55); Reply 10–12. We do not see any basis in the record to conclude that incorporating *Buss*’s notification functionality into *Fast*’s system, as Petitioner and Dr. Reynolds propose, would have been uniquely challenging or otherwise beyond the level of an ordinarily skilled artisan. *See KSR*, 550 U.S. at 416, 421; *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161–62 (Fed. Cir. 2007).

Third, Patent Owner argues that Dr. Reynolds’s obviousness analysis is improper because he “based his analysis on the perspective of a POSITA [person having ordinary skill in the art] as of *July 1998*” and “completely fails to address why a POSITA *at the time of the invention* in 1995 would be motivated to combine *Fast* and *Buss*.” PO Resp. 37. According to Patent

Owner, Dr. Reynolds's opinions are based on improper hindsight reasoning. *Id.* Patent Owner does not show sufficiently, however, that Dr. Reynolds's analysis relies on knowledge that was beyond the level of ordinary skill in the art at the time of the '381 patent, as evidenced by the disclosures in Fast and Buss themselves. For example, Dr. Reynolds relies on Buss's disclosure of a GPS-enabled message display device that displays messages based on triggering conditions including place along a path, direction of travel, and time, and Fast's disclosure of a GPS-enabled transmitter beacon that triggers alarms based on triggering events that include time, place, and presence or absence in defined zones or areas. He also explains why in his opinion a person of ordinary skill in the art would have combined those teachings based on the references themselves. Ex. 1009 ¶¶ 54–57. Fast has an effective filing date of September 2, 1993, and Buss has an effective filing date of November 1, 1993, both of which are before the earliest priority date (November 9, 1995) claimed by the '381 patent. Ex. 1004; Ex. 1009; Pet. 15, 20. We do not see, and Patent Owner does not demonstrate persuasively, how the disclosures in Fast and Buss would have been beyond the level of ordinary skill in the art as of November 9, 1995.

Accordingly, we are persuaded that Petitioner has established that a person having ordinary skill in the art would have had reason to combine the teachings of Fast and Buss to achieve the recited methods.

4. *Claims 1 and 7*

Petitioner has presented evidence showing that combining “the functionality of *Buss*'s GPS-based portable pager device into *Fast*'s GPS-based portable security beacon” provides a system that teaches all the elements of independent claims 1 and 7. Pet. 21–24, 27. For example,

Petitioner asserts that the combined system teaches “defining a plurality of predetermined areas” (defined areas include home, school, playground, park, and disallowed), “associating one or more events with each of said predetermined areas; specifying at least one triggering criteria [sic] for each of said one or more events” (alarms or notices are sent based on user’s presence or absence from predetermined areas depending on time of day and direction of travel), “calculating the position of (the) said roving apparatus” (the GPS receiver calculates position), and “predetermined areas are irregularly distributed according to predetermined points-of-interest” (zones are arbitrarily positioned based on the locations of parks, schools, and retail stores). *Id.* at 22–23, 27. Petitioner also identifies how the combined system corresponds to element (e) of claim 1³ as follows:

’381 claim element	Disclosures in Fast and Buss
“(evaluating) performing an evaluation of the status and position of (the) said roving apparatus in comparison to said at least one triggering criteria and the position of said predetermined areas; and i) if (the) said evaluation determines the roving apparatus is outside all predetermined areas, the roving apparatus maintains (said calculating) performing the evaluation of the status and position of the roving apparatus, without triggering an event”	Combined system does not trigger an alert or message if the user is outside defined areas such as home, school, playground, park, lake, disallowed, and retail store zones. Pet. 23–24 (citing Ex. 1009 ¶ 55).

³ Petitioner argues that “[c]laim 7 is similar in scope to claim 1” and relies on these disclosures with respect to claim 1 to meet the similar recitations in claim 7. Pet. 27.

'381 claim element	Disclosures in Fast and Buss
“if (the) said evaluation determines the roving apparatus is within one of (the) said predetermined areas, and said (the) at least one (said) triggering criteria specified for (an) a particular event is met, (the) said particular event is triggered”	Combined system sends alarms or messages based on user’s presence or absence from defined areas such as home, school, playground, park, lake, disallowed, and retail store zones. Pet. 24 (citing Ex. 1009 ¶¶ 46–48, 55).
“if (the) said evaluation determines the roving apparatus is within (the) an overlapping portion of any overlapping predetermined areas, and (the) said at least one (said) triggering criteria specified for an event is met, events from any of the overlapping predetermined areas may be triggered in accordance with any one of said at least one triggering criteria for said overlapping predetermined areas”	Fast discloses that predetermined areas can overlap, for example, when the school zone encompasses the playground and lake zones. Pet. 17–18 (citing Ex. 1004, 4:12–28 and Ex. 1009 ¶ 47). The combined system will transmit alerts based on its presence within overlapping zones. <i>Id.</i> at 24 (citing Ex. 1009 ¶¶ 46–48, 55).

As an initial matter, we note that claims 1 and 7 are method claims, and the step of triggering an event is conditional, dependent upon the location of the roving apparatus and whether the triggering criterion has been met. In instances in which the roving apparatus is not in a predetermined area, or is in predetermined area but the triggering criterion has not been met, the triggering step will not be performed. As method claims with conditional limitations, the broadest reasonable interpretation of claims 1 and 7 includes instances in which the triggering criterion has not been met. *Ex parte McGregor*, 2015 WL 4737393 at *2 (PTAB Aug. 6, 2015) (citing *Ex parte Katz*, 2011 WL 514314 at *4–5 (BPAI Jan. 27, 2011)); *see In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)

(claims are given their broadest reasonable interpretation during examination). Accordingly, Petitioner need not establish that the prior art discloses these limitations in order to meet its burden of showing that the claims are unpatentable. *See In re Johnston*, 435 F.3d 1381, 1384 (Fed. Cir. 2006) (“optional elements do not narrow the claim because they can always be omitted”). Nevertheless, we determine, for the reasons that follow, that Petitioner has established that the cited prior art discloses all the elements of claims 1 and 7, including the conditional limitations.

Patent Owner makes three arguments with respect to claims 1 and 7. First, Patent Owner argues that Fast and Buss do not teach the triggering mechanism claimed in the '381 patent. PO Resp. 41–45. According to Patent Owner, claims 1 and 7 require that that two things happen in order to trigger an event: “(1) the roving apparatus is determined to be within at least one predetermined area that has been associated with an event, and (2) another separate triggering criteria [sic] specified for the event is also met while the roving apparatus is within the at least one predetermined area.” *Id.* at 41. Patent Owner argues that Fast teaches that an alarm is only triggered based on a determination of whether or not an allowed zone was exited, and therefore “does not even teach triggering based on being *within* the predetermined area of an allowed zone as required by the challenged claims.” *Id.* at 44–45. Patent Owner also argues that Fast’s “disclosure of changing zones according to time of day does not teach a triggering criteria [sic]” because “[t]he time of day only changes or redefines the predetermined areas” and “it does not affect the triggering mechanism.” *Id.* at 44 (emphasis omitted).

Claims 1 and 7 recite that an event is triggered if the roving apparatus is within a predetermined area and at least one triggering criterion specified for the event is met. Ex. 1001, 5:11–15, 5:58–67. The Specification describes triggering criteria as including “direction of travel of the roving apparatus, position of the roving apparatus relative to the locality, increase in distance from the locality, time, day, date, temperature, password, or any other criteria.” *Id.* at 1:53–57. Petitioner has shown sufficiently that Fast teaches triggering events based, at least, on location and/or time. *See* Pet. 15–24; Reply 7–9. Specifically, Petitioner points to Fast’s description of creating zones that are allowed or disallowed (“predetermined areas”) and sending a warning message (“event”) when the user enters a disallowed zone (“triggering criteria”). Pet. 16–17. Petitioner also points out that Fast teaches that a warning message can be issued (“event”) when a zone boundary has been violated (“triggering criteria”), and that an emergency transmission can be avoided (“event”) by returning to the allowed zone within a specified time (“triggering criteria”). *Id.*; Reply 7–8. Fast also teaches that time can be used as a triggering criterion, such as when a predetermined area is an allowed area during specific times, but disallowed during other times. Ex. 1004, 4:11–23. Patent Owner does not direct us to anything in the Specification, or the language of the claims, that requires that the triggering criterion specified for an event within a predetermined area must be something separate from the roving apparatus’s location within the predetermined area. Thus, we are persuaded by Petitioner’s argument that Fast discloses “if (the) said evaluation determines the roving apparatus is within one of (the) said predetermined areas, and said (the) at least one (said) triggering criteria [sic] specified for (an) a particular event is met,

(the) said particular event is triggered” limitation of claim 1, and the “triggering an event if . . . at least one triggering criteria [sic] for the event is met” limitation of claim 7.

Second, Patent Owner argues that Fast and Buss do not teach overlapping predetermined areas. PO Resp. 45–49. Patent Owner contends that element (e) of claims 1 and 7 requires that “predetermined areas must be capable of ‘overlapping’ one another such that events associated with both predetermined areas can be triggered in the areas of overlap.” *Id.* at 45–46. According to Patent Owner, “[i]n *Fast*, due to the binary logic of the allowed and disallowed zones, zones cannot coexist in any overlapped portion in *Fast*.” *Id.* at 46 (citing Ex. 2003 ¶ 100). Patent Owner argues that, because there are no events associated with Fast’s allowed zones, even if the allowed and disallowed zones in Fast are “loosely understood as overlapping, only one event will ever be triggered, which is inconsistent with the overlapping limitations of the ’381 Patent.” *Id.* at 47. Patent Owner further argues that the restraining order embodiment described in Fast “does not teach the use of predetermined areas, much less overlapping predetermined areas,” *id.* at 48, because it is based only on relative proximity, *id.* at 22.

Petitioner replies that Fast expressly teaches that zones and times may overlap, such as a disallowed lake zone in an allowed park zone. Reply 6 (citing Ex. 1004, 4:22–27). Petitioner contends that Fast’s restraining order embodiment defines a predetermined area because “a predetermined distance from a point defines a predetermined area.” *Id.* at 4–5. Petitioner also notes that the Petition “explains in detail that the combined system of *Fast* and *Buss* includes the disallowed zones from the restraining order embodiment” as follows:

The combined system provides alerts based on the user's presence or absence from zones such as SCHOOL (which encompasses a smaller PLAYGROUND zone) and the PARK (which encompasses the smaller LAKE zone). Any of these zones may overlap with zones defined by predetermined distances (radii) around perpetrators (hereinafter DISALLOWED zones) or fixed locations such as retail stores (hereinafter RETAIL STORE zones).

Id. at 4 (citing Pet. 22) (internal citation omitted).

Based on our review of the record, we find Petitioner's arguments to be persuasive. Fast teaches that zones can overlap, such as a playground zone within a larger school zone, or a lake within a park, and "[z]ones and times may overlap to provide flexibility in a child's schedule." Ex. 1004, 4:11–32. A message or warning can be triggered based on location within a zone and/or the time of day, and an emergency transmission can be avoided if the allowed zone is returned to within a specified time after receiving a warning that a zone boundary has been violated. *Id.*

We disagree with Patent Owner that triggering only one event in an overlapping area "is inconsistent with the overlapping limitations of the '381 Patent." PO Resp. 47. Claims 1 and 7 require that, if the roving apparatus is in a location where predetermined areas overlap, and "at least one" triggering criterion specified for an event is met, "events from *any* of the overlapping predetermined areas *may* be triggered in accordance with *any one* of said at least one triggering criteria [sic] for said overlapping predetermined areas." Ex. 1001, 5:16–23, 61–67 (emphasis added). Patent Owner's argument that, in order to be overlapping, events from both predetermined areas must be capable of being triggered in the areas of overlap seems to be premised on the assumption that the events must be able to be triggered at the same time. Claims 1 and 7, however, only require that

events from “any of” the overlapping areas “may be triggered” if “at least one” of the associated triggering criteria is met. According to the plain language of the claims, if only one triggering criterion associated with an event in one of the overlapping areas is met when the roving apparatus is within overlapping predetermined areas, triggering that one event would satisfy this limitation of claims 1 and 7. Additionally, the use of the word “may” indicates possibility, not capability as, for instance, use of the word “can” would do. Neither Patent Owner nor Dr. Brogioli have directed us to persuasive evidence, such as a definition or description in the Specification, that the phrase “events from any of the overlapping predetermined areas may be triggered” requires that the claimed methods include the capability to trigger more than one event in the overlapping areas.

Third, Patent Owner argues that Fast and Buss do not teach the requirement of claims 1 and 7 that “events from any of the overlapping predetermined areas may be triggered in accordance with any one of said at least one triggering criteria [sic] for said overlapping predetermined areas.” PO Resp. 49–50. According to Patent Owner, “[s]ince the word ‘events’ is plural, the broadest reasonable interpretation is that two or more different events must be capable of being triggered in the area of overlap.” *Id.* at 49. We disagree. As set forth above, claims 1 and 7 do not require the capability to trigger more than one event within the overlapping areas. Based on our review of the record, we are convinced that the combination of Fast and Buss discloses “events from any of the overlapping predetermined areas may be triggered in accordance with any one of said at least one triggering criteria [sic] for said overlapping predetermined areas” as recited in claims 1 and 7.

After considering Petitioner's and Patent Owner's positions, as well as their supporting evidence, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 1 and 7 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Fast and Buss.

5. *Claims 2 and 8*

Claims 2 and 8 require that at least one triggering criterion be satisfied when the distance between a predetermined point in a predetermined area and the roving apparatus increases “with respect to a previously predetermined minimum distance.” Ex. 1001, 5:26–30, 6:1–5. We are persuaded that these claims would have been obvious over the combination of Fast and Buss.

Petitioner cites to Fast's description of the restraining order embodiment in which “the event ‘an alarm condition is terminated’ is triggered when the user leaves a DISALLOWED zone, which is defined by a radius or minimum distance that must be kept between the user and another person.” Pet. 25 (citing Ex. 1009 ¶ 49). Patent Owner argues that Fast's “restraining order embodiment does not use zones or areas to trigger events.” PO Resp. 51. According to Patent Owner:

[C]laims 2 and 8 require an increase in distance from a predetermined point to trigger an event, but in *Fast*, the alarm will sound based on a substantial area trigger when there is a lack of an increase in distance (*i.e.*, when the threatening person remains too close to the threatened person). In other words, increasing distance actually *prevents* the [emergency mode] from being triggered.

Id. at 52 (citing Ex. 2003 ¶ 117). Patent Owner also argues that Petitioner does not account for the “previously determined minimum distance” limitation of claims 2 and 8. *Id.* at 51.

Patent Owner's arguments are not persuasive. Specifically, Fast discloses that “[a]ny time the person under restraining order comes within range of the protective transmitter, the beacon is activated and appropriate action can be taken.” Ex. 1004, 7:58–60. Fast also discloses that, “[i]f the positions of the two beacons were found to be too close together, a warning message would be sent to each wearer indicating that a potential violation had occurred,” and “[i]f greater separation distance was not provided within a predetermined time limit, both beacons would be triggered into emergency mode.” *Id.* at 7:67–8:5. We agree with Petitioner that these disclosures in Fast describe “an increase in distance from” a predetermined area or point-of-interest (the protected person) satisfying “at least one triggering criteria [sic]” (stopping a warning notice and/or suppressing emergency mode) with respect to that previously determined minimum distance (when the restrained person moves outside of a specified distance around the protected person), as required by claims 2 and 8.

Consequently, based on our review of the record, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 2 and 8 would have been obvious over the combination of Fast and Buss.

6. *Claims 3–5 and 9–11*

Claims 3, 4, 9, and 10 require that at least one triggering criterion be satisfied when “the bearing of the roving apparatus relative to a predetermined point [of interest] falls within a predetermined range of bearings,” or when “the bearing of a predetermined point [of interest] relative to the heading of the roving apparatus falls within a predetermined range of bearings.” Ex. 1001, 5:31–38, 6:6–14. Petitioner contends that “[i]n the combined system, the portable device sends alerts as the user is

approaching, for example, a RETAIL STORE or DISALLOWED zone along the user's direction of travel." Pet. 25–26. Petitioner offers the Reynolds Declaration in support of its contention that deriving a method to determine whether a roving apparatus is within a range of bearings relative to a point of interest "could have been done using obvious and simple techniques." *Id.*; see Ex. 1009 ¶¶ 52–53, 56.

Patent Owner argues that Dr. Reynolds "assumes facts based on his hindsight interpretation of what the references could have included, as opposed to what the references actually include," such as "stat[ing] without any supporting citations that *Fast* and *Buss* disclose a system 'where a range of bearings is already computed,' even though that disclosure is not found in the relevant references." PO Resp. 53 (citing Ex. 1009 ¶ 56). According to Patent Owner:

[T]he path mode of *Buss* does not disclose triggering events relating to bearings or headings at all. The path mode embodiment of *Buss* simply includes a feature where one or more intended locations of the pager can be predicted based on the direction that the pager is traveling. In other words, *direction of travel is used to define intended locations, not to trigger messages to the user.*

Id. at 54 (internal citations omitted).

As set forth above, we construe "bearing" to mean "measurement of direction between two points" and "heading" to mean "direction of travel." In *Buss*'s path mode, the user enters into the device a desired path (direction of travel) that passes through predetermined areas. Ex. 1008, 6:18–31. The user's direction along the path is defined by determining a change from one predetermined area to the next (measurement of direction between two points). *Id.* at 6:31–39. The device can then determine points of interest that

are along the user's path, and issue messages when the user within an area of interest. *Id.* at 6:30–54.

We disagree with Patent Owner that Buss does not use direction of travel to trigger messages to the user. When in path mode, messages are alerted and displayed to the user based on the determined location and direction of travel of the user. Ex. 1008, 6:18–54. For example, Buss describes the use of the path mode in traffic conditions, which would “allow[] the user to be alerted to unusual traffic conditions along the predetermined path in advance of arrival of the traffic condition.” *Id.* at 6:61–64. Buss goes on to state:

Other traffic information, even though transmitted by the paging system 10 and received and stored by the device 55, would not be presented to the user because the device 55 is able to sort through and determine the relevancy of the information based upon the location or intended location of the user.

Id. at 7:1–6. Therefore, Buss describes that messages are triggered based on the direction of travel of the user.

We are also persuaded by Dr. Reynolds's testimony that a person having ordinary skill in the art would know how to use conventional techniques to define a range of bearings as recited in claims 3, 4, 9, and 10. Ex. 1009 ¶ 56. Dr. Reynolds explains the calculations that a person having ordinary skill in the art would have used, and testifies that “a system, such as Fast and Buss, that can test for whether a point lies in a specific range of bearings can easily be modified to test for any other range of bearings by simply changing” the values described in those calculations. *Id.* We note that an obviousness “analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in

the art would employ.” *KSR*, 550 U.S. at 418. Patent Owner does not identify any evidence that determining a range of bearings was beyond the skill level of an ordinarily skilled artisan. *See Leapfrog*, 485 F.3d at 1162. Therefore, Patent Owner’s argument that Petitioner’s proffered explanation regarding the prior art’s disclosure of triggering criteria based on bearing, heading, predetermined direction, and range of direction fails because “Petitioner does not cite any teachings from either *Fast* or *Buss* relating to these specific triggering criteria” is unpersuasive. PO Resp. 53.

After considering Petitioner’s and Patent Owner’s positions, as well as their supporting evidence, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 3, 4, 9, and 10 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of *Fast* and *Buss*.

Claims 5 and 11 require that “at least one triggering criteria [sic] is satisfied when the roving apparatus is travelling in a predetermined direction, or range of directions.” Ex. 1001, 5:39–42, 6:15–18. Patent Owner relies on the same arguments it made with respect to claims 3, 4, 9, and 10. PO Resp. 55 (“This same logic applies to claims 5 and 11 as well.”). We are persuaded, based on the analysis set forth above with respect to claims 3, 4, 9, and 10, that Petitioner has shown, by a preponderance of the evidence, that claims 5 and 11 are unpatentable under 35 U.S.C. § 103 as obvious over the combination of *Fast* and *Buss*.

7. *Claims 6 and 12*

Claims 6 and 12 require that “at least one triggering criteria [sic] is satisfied when the calculated position of the roving apparatus falls within a smaller overlapping predetermined area within (the) any of said predetermined areas.” Petitioner contends that “[t]he combined system may

provide alerts based on the user's presence or absence from zones such as SCHOOL (which encompasses a smaller PLAYGROUND zone) and the PARK (which encompasses the smaller LAKE zone)." Pet. 27 (citing Ex. 1009 ¶¶ 46–49). Patent Owner responds that Petitioner's arguments "should also be rejected for the same or similar reasons as delineated above." PO Resp. 55. Patent Owner also argues that, because "*Fast* does not teach overlapping predetermined areas of any kind," it "cannot teach the narrower case of a smaller overlapping predetermined area within another predetermined area." *Id.* at 56 (citing Ex. 2003 ¶ 121).

As set forth above with respect to claims 1 and 7, we are persuaded that Petitioner has established that the combination of *Fast* and *Buss* teaches "overlapping predetermined areas" as recited in the claims. *See supra* Section II.B.4. We also are persuaded, based on the analysis set forth above with respect to the recited limitations in claims 3–5 and 9–11, that Petitioner has shown, by a preponderance of the evidence, that claims 6 and 12 would have been obvious over the combination of *Fast* and *Buss*. *See supra* Section II.B.6.

D. Secondary Considerations of Non-Obviousness

As part of our obviousness analysis, we consider the evidence and arguments submitted by Patent Owner regarding secondary considerations of non-obviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966) (secondary considerations include commercial success, long-felt but unsolved needs, failure of others, and unexpected results). Here, Patent Owner raises an argument relating to commercial success. PO Resp. 17–18.

Patent Owner states that Petitioner's PayPal Media Network ("PPMN") "is believed to be a commercial embodiment of the '381 Patent's

claimed methodologies.” PO Resp. 17 (citing Ex. 2005). According to Patent Owner, Petitioner acquired Where, Inc. (“WHERE”) in order to launch PPMN, and that “[o]ne of WHERE’s most significant assets was a patent entitled ‘Location-Based Services,’ which was filed on May 27, 2005, and issued on December 7, 2010, as U.S. Patent No. 7,848,765 (‘WHERE Patent’).” *Id.* (citing Exs. 2006, 2007). Patent Owner argues that the WHERE Patent “claims methods similar to, and in some ways broader than, the claimed methods of the ’381 Patent (insofar as the ’381 Patent would be anticipating prior art to the WHERE Patent).” *Id.* at 18 (citing Ex. 2003 ¶ 60). Patent Owner concludes that “[t]he \$135 million that Petitioner paid for WHERE to launch PPMN shows the commercial value of *improved* methods for location-based services, such as claimed in the ’381 Patent.” *Id.*

Evidence of commercial success, however, “is only significant if there is a nexus between the claimed invention and the commercial success.” *Ormco Corp. v. Align Tech, Inc.*, 463 F.3d 1299, 1311–12 (Fed. Cir. 2006). To establish a proper nexus between a claimed invention and the commercial success of a product, a patent owner must offer “proof that the sales [of the allegedly successful product] were a direct result of the unique characteristics of the claimed invention—as opposed to other economic and commercial factors unrelated to the quality of the patented subject matter.” *In re Huang*, 100 F.3d 135, 140 (Fed. Cir. 1996).

Patent Owner does not identify an alleged commercially-successful product with sales directly attributable to the methods claimed in the ’381 patent. Instead, Patent Owner argues that the claimed methods are commercially valuable because: (1) PPMN is a commercial embodiment of the methods claimed in the ’381 patent; (2) the WHERE patent and the ’381

patent are directed to similar methods; (3) most or all of the \$135 million Petitioner paid to acquire WHERE was attributable to the value of the WHERE patent; and, therefore, (4) improved methods of location-based services, such as those claimed in the '381 patent, are commercially valuable. PO Resp. 17–18.

We are not persuaded by Patent Owner's arguments. As Petitioner points out, Patent Owner does not provide any analysis of how PPMN allegedly embodies the challenged claims. *See* Reply 14. Patent Owner's only support for this contention is a citation to its Disclosure of Asserted Claims and Infringement Contentions that was filed in the related District Court proceeding regarding the '381 patent (Ex. 2005, "Infringement Contentions"). PO Resp. 17. Patent Owner's citation to the Infringement Contentions, which present approximately 54 pages of claim charts and other arguments with respect to how Patent Owner believes PPMN infringes the '381 patent, amounts to an improper incorporation by reference, and we decline to consider this information that was not provided in the Patent Owner Response.⁴ Moreover, to the extent that Patent Owner's commercial success argument is premised on the similarities between the '381 patent and the WHERE patent, Patent Owner does not provide any analysis as to how and why they are similar, and why those similarities are relevant. Patent Owner also fails to establish what, if any, part of the \$135 million Petitioner paid to acquire WHERE is specifically attributable to the WHERE patent, as compared to other assets acquired by Petitioner in the transaction.

⁴ Our rules do not permit incorporation by reference. 37 C.F.R. § 42.6(a)(3) ("Arguments must not be incorporated by reference from one document into another document.").

Patent Owner's unsupported contentions do not establish a nexus between the claimed methods and the alleged commercial value of improved methods for location-based services. Accordingly, we are not persuaded that the evidence presented amounts to a sufficient showing of commercial success attributable to the claimed invention.

III. CONCLUSION

Petitioner has shown, by a preponderance of the evidence, that claims 1–12 of the '381 patent are unpatentable under 35 U.S.C. § 103 as obvious over the combination of Fast and Buss.

IV. ORDER

In consideration of the foregoing, it is
ORDERED that claims 1–12 of the '381 patent are determined to be *unpatentable*; and

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

IPR2014-00585
Patent 6,259,381 B1

PETITIONER:

Greg H. Gardella
Scott A. McKeown
Kevin B. Laurence
OBLON SPIVAK
cpdocketgardella@oblon.com
cpdocketmckeown@oblon.com
cpdocketlaurence@oblon.com

PATENT OWNER:

John R. Kasha
KASHA LAW LLC
john.kasha@kashalaw.com

Andrew Choung
Rex Hwang
GLASER WEIL FINK JACOBS
HOWARD AVCHEN & SHAPIRO LLP
achoung@glaserweil.com
rhwang@glaserweil.com