

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

TRAXCELL TECHNOLOGIES, LLC,
Patent Owner.

IPR2022-00442
Patent 10,820,147 B2

Before MIRIAM L. QUINN, PATRICK M. BOUCHER, and
NORMAN H. BEAMER, *Administrative Patent Judges*.

BOUCHER, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314(a)

Google LLC (“Petitioner”) filed a Petition pursuant to 35 U.S.C.
§§ 311–319 to institute an *inter partes* review of claims 1, 2, 5–8, 11–13,
16–19, and 22 of U.S. Patent No. 10,820,147 B2 (Ex. 1001, “the ’147

patent”). Paper 1 (“Pet.”). Traxcell Technologies, LLC (“Patent Owner”) filed a Preliminary Response. Paper 6 (“Prelim. Resp.”).

We have jurisdiction under 35 U.S.C. § 314 and 37 C.F.R. § 42.4. Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we deny the Petition and do not institute an *inter partes* review.

I. BACKGROUND

A. The ‘147 Patent

The ’147 patent relates to “a system and method for providing navigation using mobile wireless devices.” Ex. 1001, 1:48–51. In particular, the ’147 patent describes using a mobile device to access “on-line (connected) navigation operation, as well as off-line navigation from a local database within the mobile device.” *Id.* at Abstr. Routing according to the navigation system can be controlled by traffic-congestion measurements that allow the system to select an optimum route based on expected trip duration. *Id.*

A “specific concern” that the ’147 patent identifies is the ability for the system to access user records. *Id.* at 61:45–46. Accordingly, the patent explains that mobile wireless devices “should be able to submit preference flags that will control access to the tracking and access of their accounts.” *Id.* at 61:47–49. Examples of levels that could be defined by such preference flags include: (1) open access, in which any party may access all information about a user; (2) limited access, in which certain private information like a user’s name is masked, but tracking may occur based on

demographic information; (3) polling access, in which no information is listed under an account, but tracking can still occur by geographic region; and (4) no access, in which a user may not be tracked. *Id.* at 61:49–65.

B. Illustrative Claim

Independent claim 1 is illustrative of the challenged claims and is reproduced below.

1. A wireless communications system including:
 - a first radio-frequency transceiver within a wireless mobile communications device and an associated first antenna to which the first radio-frequency transceiver is coupled, wherein the first radio-frequency transceiver is configured for radio-frequency communication with a wireless communications network;
 - a first processor within the wireless mobile communications device coupled to the at least one first radio-frequency transceiver programmed to receive information indicative of a location of the wireless mobile communications device and generate an indication of a location of the wireless mobile communications device with respect to geographic features according to mapping information stored within the wireless mobile communications device, and wherein the first processor determines user navigation information according to the location of the wireless mobile communications device with respect to the geographic features and a destination specified at the wireless mobile communications device, wherein the first processor further sends the user navigation information to the network as a number of segments, wherein at least one other processor outside the network updates the user navigation information in conformity with traffic congestion information accessible to the at least one other processor outside the network by computing a numerical value for the segments corresponding to the expected time to travel through the segments, updates the user navigation information in conformity with the numerical values for the segments, and

sends the updated user navigation information to the wireless mobile communications device;

at least one second radio-frequency transceiver and an associated at least one second antenna of the wireless communications network to which the second radio-frequency transceiver is coupled; and

a second processor coupled to the at least one second radio-frequency transceiver programmed to acquire the information indicative of a location of the wireless mobile communications device, wherein the second processor selectively acquires the information indicative of a location of the wireless mobile communications device dependent on the setting of preference flags, wherein the second processor acquires the information indicative of a location of the wireless mobile communications device if the preference flags are set to a state that permits tracking of the wireless mobile communications device, and wherein the second processor does not acquire the information indicative of the location of the wireless mobile communications device if the preference flags are set to a state that prohibits tracking of the wireless mobile communications device.

Ex. 1001, 127:63–128:50.

C. Evidence

Petitioner relies on the following references:

Uehara	US 2002/0002036 A1	Jan. 3, 2002	Ex. 1005
Yiu	US 6,928,291 B2	Aug. 9, 2005	Ex. 1006
Myr	US 6,480,783 B1	Nov. 12, 2002	Ex. 1007
Machida	US 2001/0027375 A1	Oct. 4, 2001	Ex. 1009

In addition, Petitioner relies on a Declaration by William Michalson, Ph.D. Ex. 1003. Patent Owner relies on a Declaration by Robert Van Essen. Ex. 2001.

D. Asserted Grounds of Unpatentability

Petitioner challenges claims 1, 2, 5–8, 11–13, 16–19, and 22 on the following grounds. Pet. 3.

Claim(s) Challenged	35 U.S.C. §¹	References
1, 5, 7, 8, 11, 12, 17–19 ²	103(a)	Myr, Yiu
2, 6, 13, 16, 22	103(a)	Myr, Yiu, Machida
1, 5, 7, 8, 11, 12, 17–19	103(a)	Uehara, Yiu, Myr
22	103(a)	Uehara, Yiu, Myr, Machida

E. Real Parties in Interest

The parties identify only themselves as real parties in interest. Pet. 100³; Paper 4, 2.

¹ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103(a). The ’147 patent was filed on February 12, 2020, and claims the benefit of filing dates through a series of continuation applications to August 17, 2006, as well as the benefit of even earlier dates through a continuation-in-part application and from various provisional applications. Ex. 1001 at codes (22), (60), (63).

Petitioner “relies on [the earliest date of October 4, 2001], but reserves the right to challenge it.” Pet. 1 n.1. Patent Owner does not dispute that the pre-AIA version of § 103(a) applies, and we accordingly apply it herein.

² Petitioner incorrectly includes claim 6 in the heading to section VI of the Petition, but that claim is not substantively addressed for this ground. *See* Pet. 4.

³ Petitioner states that it “is a subsidiary of XXVI Holdings Inc., which is a subsidiary of Alphabet Inc. XXVI Holdings Inc. and Alphabet Inc. are not real parties-in-interest to this proceeding.” Pet. 100 n.7.

F. Related Matters

Both parties identify the following proceedings as involving the '147 patent: (1) *Traxcell Techs., LLC v. Verizon Wireless Personal Communications, LP*, No. 6:20-cv-01175 (W.D. Tex.); (2) *Apple Inc. v. Traxcell Techs., LLC*, No. 3:21-cv-06059 (N.D. Cal.); (3) *Traxcell Techs., LLC v. Google LLC*, 6:21-cv-00023 (W.D. Tex.); (4) *Traxcell Techs., LLC v. Apple Inc.*, No. 6:21-cv-00074 (W.D. Tex.); (5) *Traxcell Techs., LLC v. Google LLC*, No. 6:21-cv-01312 (W.D. Tex.); and (6) *Traxcell Techs., LLC v. Apple Inc.*, No. 6:21-cv-01314 (W.D. Tex.).

II. ANALYSIS

A. Legal Principles

A claim is unpatentable for obviousness under 35 U.S.C. § 103(a) if 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.” *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 indicia of nonobviousness, i.e., secondary considerations.⁴ *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

⁴ The parties do not address objective indicia of nonobviousness, which accordingly do not form part of our analysis.

Additionally, the obviousness inquiry typically requires an analysis of “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) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)); see *In re Warsaw Orthopedic, Inc.*, 832 F.3d 1327, 1333 (Fed. Cir. 2016) (citing *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1360 (Fed. Cir. 2006)).

B. Level of Ordinary Skill in the Art

In determining whether an invention would have been obvious at the time it was made, we consider the level of ordinary skill in the pertinent art at the time of the invention. *Graham*, 383 U.S. at 17. “The importance of resolving the level of ordinary skill in the art lies in the necessity of maintaining objectivity in the obviousness inquiry.” *Ryko Mfg. Co. v. Nu-Star, Inc.*, 950 F.2d 714, 718 (Fed. Cir. 1991). The “person of ordinary skill in the art” is a hypothetical construct, from whose vantage point obviousness is assessed. *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998). “This legal construct is akin to the ‘reasonable person’ used as a reference in negligence determinations” and “also presumes that all prior art references in the field of the invention are available to this hypothetical skilled artisan.” *Id.* (citing *In re Carlson*, 983 F.2d 1032, 1038 (Fed. Cir. 1993)).

Petitioner proposes that a person of ordinary skill in the art “would have been someone knowledgeable in mobile communication devices and mobile navigation systems,” and that such a person “would have at least a

bachelor's degree in Computer or Electrical Engineering, Computer Science, or equivalent training, in addition to approximately 2 years of experience working on telecommunications navigation and geolocation systems.” Pet. 2–3 (citing Ex. 1003 ¶¶ 30–34). Patent Owner proposes that a person of ordinary skill in the art “would have at least a Master of Science (‘MS’) Degree in Computer Science, Computer Engineering, Cartography, or equivalent work experience in the field of computer networks, along with knowledge of the general structure of networked communication systems, its hardware and software components and underlying communications technologies.” Prelim. Resp. 6. Patent Owner further proposes that a person of ordinary skill in the art “would be familiar with the latest communications standards.” *Id.* (citing Ex. 2001, 7). Neither Patent Owner nor Mr. Van Essen explains why the higher educational level is necessary, and, on the current record, we do not discern a basis for reaching a different conclusion under either proposed articulation of the level of ordinary skill.

Because we find Petitioner's proposal reasonable, consistent with the level of skill reflected by the prior art, and supported by the testimony of Dr. Michalson, we adopt it for purposes of this Decision. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art may reflect an appropriate level of skill in the art).

C. Claim Construction

The Board uses “the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and

the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b) (2019); *see Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Both parties note that, for a related patent, the Eastern District of Texas previously construed the term “preference flags,” recited in challenged independent claims 1, 11 and 22 of the ’147 patent, as “two or more flags to control access to tracking of the user.” Pet. 3 (citing Ex. 1008, 54–55; Ex. 1003 ¶¶ 35–36); Prelim. Resp. 5 (citing Ex. 1008, 54–55). Both parties state that they apply this construction in their briefs. Pet. 3; Prelim. Resp. 5. In light of the parties’ apparent agreement, and because the district court’s construction appears reasonable, we adopt it for purposes of this Decision.

Patent Owner additionally addresses construction of the phrase “navigation information,” which is recited in independent claims 1, 11, and 22 of the ’147 patent, by directing our attention to definitions for “navigation” provided by selected general-purpose dictionaries: (1) “the science of getting ships, aircraft, or spacecraft from place to place especially : the method of determining position, course, and distance traveled,” Ex. 2003; and (2) “the act of directing a ship, aircraft, etc. from one place to another, or the science of finding a way from one place to another,” Ex. 2002.⁵ Prelim. Resp. 4–5. Relying on such definitions, Patent Owner proposes that the phrase be construed as “information of a route directed from one place to another composed of a number of segments.” *Id.* at 5 (emphasis omitted).

⁵ Patent Owner appears to interchange the identification of Exhibits 2002 and 2003 as filed in the record. *See* Prelim. Resp. 5.

The specification of the '147 patent does not use the term “navigation information” outside of its title and claims, and we discern insufficient reason to include “composed as a number of segments” as part of its construction because the claims explicitly further limit “navigation information” by reciting such segmentation. *See* Ex. 1001, 128:17–19 (claim 1 reciting “wherein the first processor further sends the user navigation information to the network as a number of segments”), 130:21–23 (claim 11 reciting “sending the user navigation information to the at least one other processor outside the network as a number of segments”), 132:54–57 (claim 22 reciting “wherein the first processor further sends the user navigation information to the at least one other processor outside of the network as a number of segments”). Nevertheless, consistent with the dictionary definitions Patent Owner provides, we agree that the “term ‘navigation information’ includes at least ‘a course or way (route) from one place to another.’” Prelim. Resp. 5.

In adopting such a construction for purposes of this Decision, we additionally note that each of independent claims 1, 11, and 22 further recites “traffic congestion information” as a distinct term. *See* Ex. 1001, 128:21–22, 130:26–27, 132:51. We accordingly treat “navigation information” and “traffic congestion information” as distinct in meaning. *See CAE Screenplates Inc. v. Heinrich Fiedler GmbH*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”).

D. Overview of the Prior Art

1. Myr

Myr describes a “real time traffic Guidance System, which is capable of providing [an] optimal route from the present position of a vehicle to a desired target destination when traffic jams may be present.” Ex. 1007, 2:13–18. “Thereafter the optimal route found is communicated to the driver and displayed on the vehicle’s computer screen featuring the digital map of the relevant region and/or via audio instructions.” *Id.* at 2:18–21.

Figure 4 of Myr is reproduced below.

Fig. 4

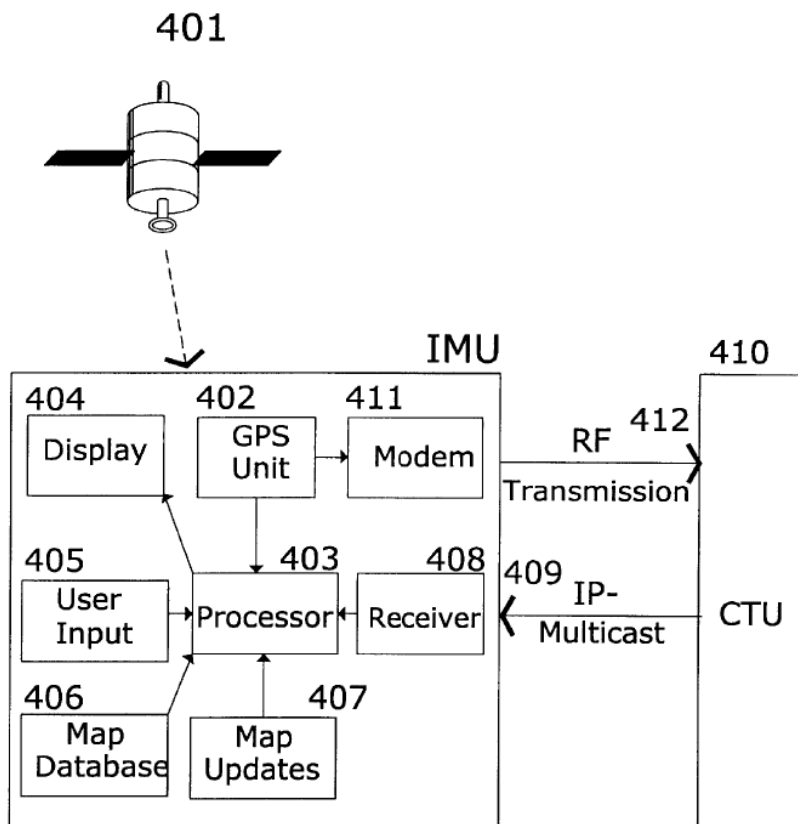


Figure 4 shows the main components of an Individual Mobile Unit (“IMU”) and illustrates information exchange with a Central Traffic Unit (“CTU”).

Id. at 5:43–44. Satellite 401⁶ supplies global positioning signals (“GPS”) to the IMU. *Id.* at 5:47–48. The IMU itself comprises GPS locator unit 402, processor 403 with map database 406 and update map database 407, display unit 404, additional user manual input 405, and receiver 408. *Id.* at 5:47–52. IP Multicast 409 accomplishes communication from CTU 410 to the IMU. *Id.* at 5:52–53. Myr contemplates embodiments in which client vehicles will also function as sample vehicles, which are part of a fleet that travels and passively collects sample traffic congestion data along a broad range of road systems. *Id.* at 5:18–21, 5:53–57. In such cases, the IMU is further equipped with transmitter unit 411 to perform RF transmissions to CTU 410, as indicated by arrow 412. *Id.* at 5:53–57.

2. *Yiu*

Yiu relates to “techniques for controlling the release of private information over a network.” Ex. 1006, 1:13–14. Figure 2 of Yiu is reproduced below.

⁶ For clarity, we refer to the reference numbers shown in the drawing. Myr instead refers to elements of the drawing as “Unit X,” where X is the corresponding reference number less 100 times the drawing number. So, for example, Myr identifies the satellite appearing in Figure 4 as “Unit 1,” rather than with the reference number 401. *See* Ex. 1007, 5:46–57.

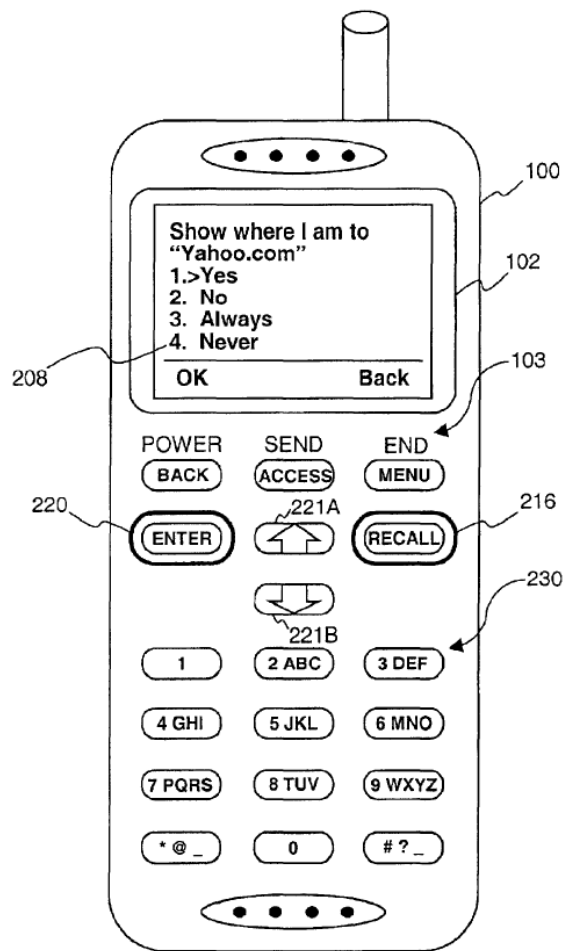


FIG. 2

Figure 2 shows an example of a wireless device in the form of cellular telephone 100, in which a privacy-negotiation graphical user interface (“GUI”) is implemented. *Id.* at 5:11–13. Telephone 100 includes keypad 103 and display 102, which may display hypermedia information 208. *Id.* at 5:13–16.

Hypermedia information 208 is an example of the privacy-negotiation GUI, generated by a browser in telephone 100. *Id.* at 5:25–27. In this example, it includes a list from which a user may dynamically specify privacy parameters permissions. *Id.* at 5:27–30. For instance, “[t]he GUI may enable the user to provide or deny permission to release the private

information for only the current request (by choosing ‘Yes’ or ‘No’) or for all requests associated with the target application (by choosing ‘Always’ or ‘Never’).” *Id.* at 5:30–34.

3. Machida

Machida relates to “a navigation system that provides users with map data and road guidance.” Ex. 1009 ¶ 1. Figure 4 of Machida is reproduced below.

FIG. 4

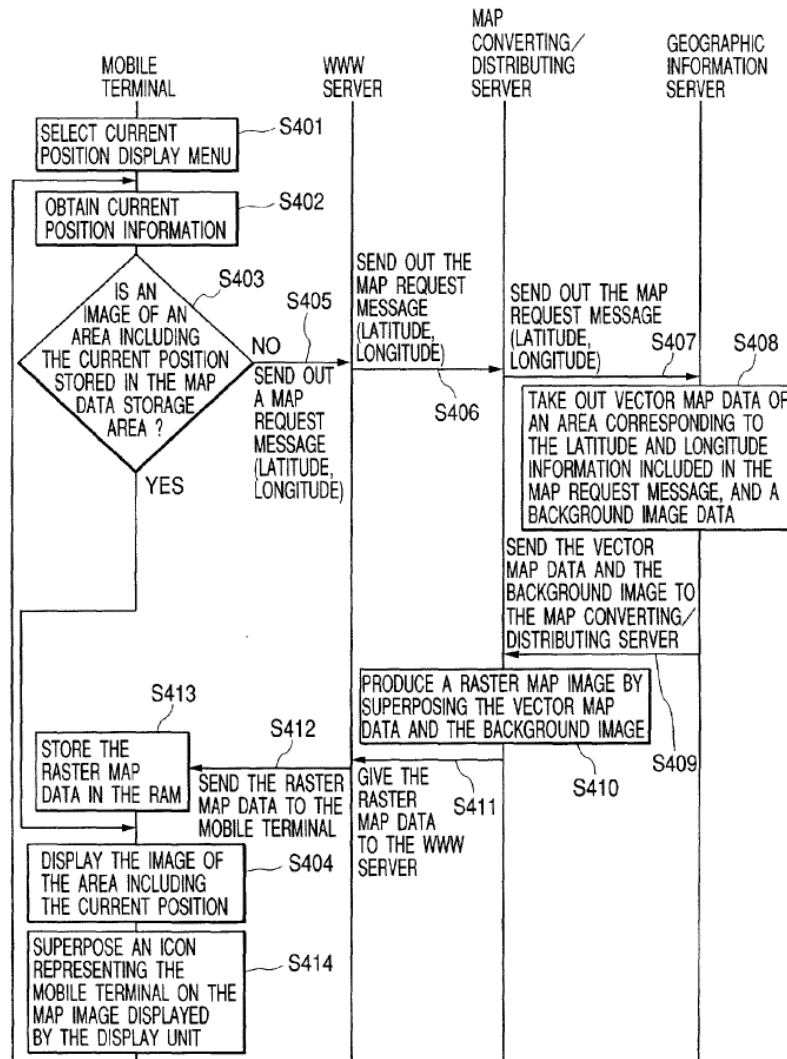


Figure 4 is a sequence diagram showing a signal sequence for displaying a map image including a current position on a mobile terminal. *Id.* ¶ 12.

After the mobile terminal's CPU receives "current position information" at S402 by responding to an instruction specifying a "current position display menu," the CPU "makes a query to see if an image of an area including the current position is stored in the map data storage area" at S403. *Id.* ¶ 54. If so, the CPU instructs a display unit to display the image of the area, including the current position, at S404. *Id.* If not, the CPU initiates a procedure that results in sending a "map request message" to a geographic information server at S405, and may update the map in the mobile terminal's map data storage area. *Id.*

4. Uehara

Uehara "relates to a radio communication apparatus and a radio communication system, which can be also used in a short-range radio data communication system utilizing relatively we[a]k radio waves." Ex. 1005 ¶ 3. Uehara provides context for its description by noting that, "in the near future, mobile phones will be able to execute high-speed data communication, and to mount a high-resolution color LCD." *Id.* ¶ 13. Accordingly, "it is expected that services will be demanded which provide interactive information such as neighborhood shop information, position information on the mobile phone and neighborhood map information, etc., using information on the positions of the mobile phones." *Id.* For example, Uehara discloses that "a service can be offered to guide the owner of the radio communication apparatus 14 to the owner's intended destination using image data on the display unit of the apparatus 14." *Id.* ¶ 83.

Figure 8 of Uehara is reproduced below.

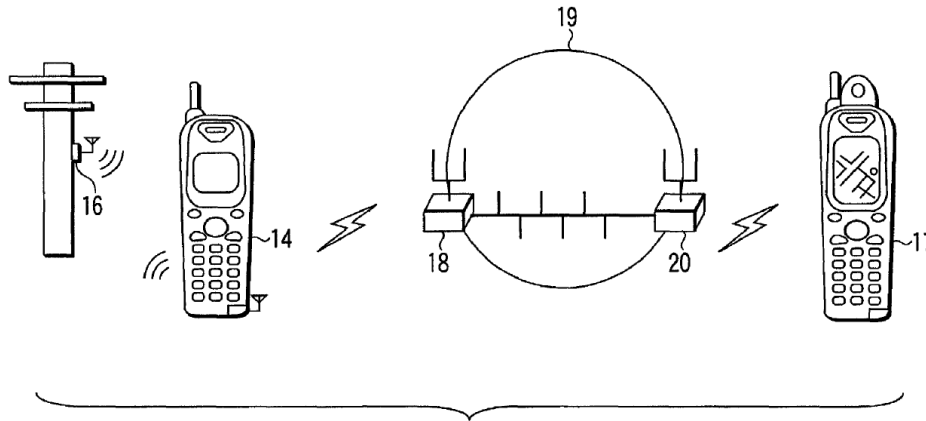


FIG. 8

Figure 8 schematically illustrates communication among two radio communication apparatuses 14 and 17 (shown as mobile phones), Bluetooth stationary station 16, two base stations 18 and 20, and mobile radio communication system 19. *Id.* ¶ 95. Uehara explains that “position information on a radio communication apparatus as a destination can be acquired by making a phone call to the apparatus via a mobile radio communication system 19.” *Id.* Radio communication apparatus 14 periodically acquires position information from Bluetooth stationary station 16, and sends the acquired position information to base station 18 of mobile radio communication system 19. *Id.* When radio communication apparatus 17 calls radio communication apparatus 14, the position information acquired by radio communication apparatus 14 is transferred to radio communication apparatus 17 via mobile radio communication system 19.

Figure 2 of Uehara is reproduced below.

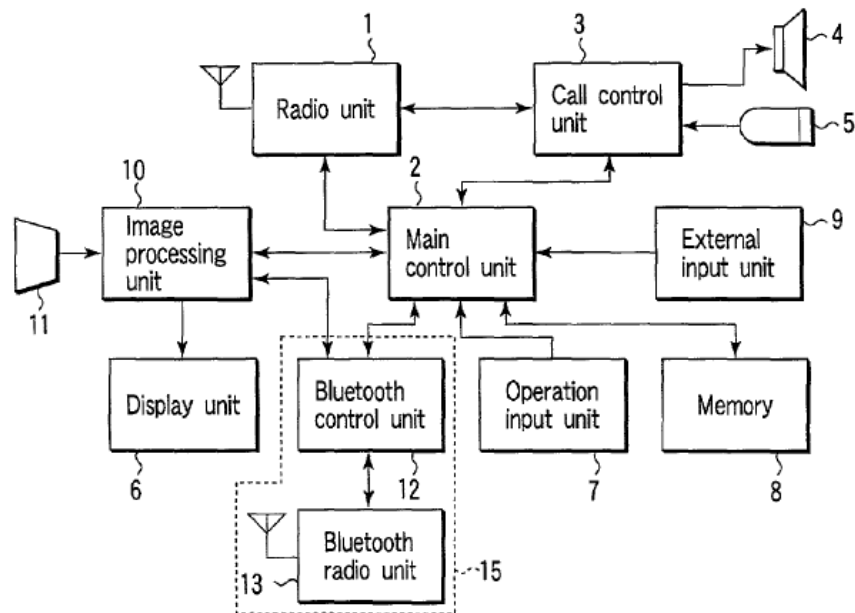


FIG. 2

Figure 2 illustrates the structure of a radio communication apparatus, i.e., one of the mobile phones shown in Figure 8, reproduced above. *Id.* ¶ 49. In addition to other components, the radio communication apparatus includes main control unit 2 and Bluetooth unit 15, which includes Bluetooth control unit 12 and Bluetooth radio unit 13. *Id.* ¶¶ 50, 53. “[M]ain control unit 2 executes control for establishing a communication channel based on a communication protocol.” *Id.* ¶ 53.

E. Obviousness Challenges Based on Myr and Yiu

Petitioner challenges claims 1, 5, 7, 8, 11, 12, and 17–19 as unpatentable under 35 U.S.C. § 103(a) over Myr and Yiu, and challenges claims 2, 6, 13, 16, and 22 as unpatentable under 35 U.S.C. § 103(a) over Myr, Yiu, and Machida. Pet. 4–51. Petitioner’s element-by-element analyses of its challenges on these grounds rely primarily on Myr, with

Petitioner identifying disclosures that it contends correspond to the structure and general functionality of the claimed wireless communications system. *See id.* For the limitations related to “preference flags,” Petitioner additionally relies on Yiu. *See id.* at 19–29. And for the limitations of claim 22 (and certain dependent claims) regarding “mapping information” stored within the wireless mobile communications device, Petitioner relies on Machida. *See id.* at 37–44.

Petitioner’s reliance on Myr particularly includes drawing a correspondence between the recited “wireless mobile communications device” and Myr’s mobile unit shown in Figure 4, reproduced above. *Id.* at 4–5. Petitioner specifically draws a correspondence between the recited “first radio frequency transceiver” and Myr’s receiver 408 and transmitter unit 411, adding that a person of ordinary skill in the art would have understood that transmitter unit 411 performs RF transmission via an antenna like RF antenna 802 shown in Figure 8, which Petitioner identifies with the recited “first antenna.” *Id.* at 4–6. Because Myr’s transmitter unit 411 and receiver 408 communicate wirelessly with the CTU, Petitioner reasons that “the first radio-frequency transceiver is configured for radio-frequency communication with a wireless communications network,” as the claims further require. *Id.* at 7–9.

Our analysis focuses on the following limitation of independent claim 1 and its similar counterparts in independent claims 11 and 22:

wherein the first processor further sends the user navigation information to the network as a number of segments, wherein at least one other processor outside the network updates the user navigation information in conformity with traffic congestion information accessible to the at least one other processor outside the network by computing a numerical value for the

segments corresponding to the expected time to travel through the segments, updates the user navigation information in conformity with the numerical values for the segments, and sends the updated user navigation information to the wireless mobile communications device.

See Ex. 1001, 128:17–29, 130:21–32 (corresponding limitation of claim 11), 132:46–62 (corresponding limitation of claim 22). For convenience, we refer to this limitation herein as “the update limitation.” As is apparent, the first “wherein” clause of the update limitation recites action performed by the first processor, while the second “wherein” clause recites actions performed by “at least one other processor outside the network.” Petitioner identifies the recited “first processor” with processor 403 of Myr’s mobile unit, shown in Figure 4, reproduced above. *Id.* at 10–11. Petitioner further identifies correspondences between the functional limitations performed by the “first processor” and Myr’s process for providing navigation information. *Id.* at 11–18. And Petitioner identifies the “at least one other processor outside the network” with a processor of Myr’s CTU. *See id.* at 15 (asserting that traffic congestion data are received from the CTU).

Petitioner addresses the update limitation within the context of Myr’s disclosed “Guidance System, which is capable of providing [an] optimal route from the present position of a vehicle to a desired target destination when traffic jams may be present.” Pet. 15 (alteration in original) (quoting Ex. 1007, 2:13–18). As Petitioner observes, Myr discloses a fleet of traveling vehicles, including the mobile units illustrated in Figure 4, reproduced above. *Id.* “[C]urrent travel times, which reflect sudden and unpredictable changes in traffic conditions,” are “periodically broadcasted by the CTU . . . to end-users where they are entered into the databases of”

the mobile units. Ex. 1007, 3:14–19. Upon “receiving a request from a driver for a shortest route to a particular destination,” the mobile unit “applies an optimization procedure for computing an optimal route” that makes use of travel times for “individual sections of roads” updated by the CTU. *Id.* at 3:20–28.

Within this system, Petitioner identifies the “sections of roads” for which travel times are defined with the “segments” recited in the two wherein clauses. Pet. 17 (“These sections are the *segments*.”). Because Myr’s CTU receives GPS data from multiple mobile units, Petitioner reasons that the first wherein clause is met, with the processor of Myr’s mobile units sending such GPS data to Myr’s network. *Id.*; see Ex. 1007, 2:67–3:3 (“The SMU vehicles communicate to CTU their GPS data: the present positions, the position time, their IDs, and their speed vectors at specific time intervals.”).

For the second wherein clause, which relates to “updates [of] the user navigation information in conformity with traffic congestion information,” Petitioner observes that Myr’s “navigation information is updated based on current travel times for the segments,” which accounts for “updated information on traffic bottle neck situations (i.e. road ID, current time, and travel times of the latest n vehicles).” Pet. 17–18; Ex. 1007, 3:3–6. According to Petitioner, such updated information is sent to Myr’s mobile units, such that Petitioner contends that all aspects of the second wherein clause are met by Myr. Pet. 18; Ex. 1007, 4:51–57 (“At any point of the journey the driver can enter a request for alternative route and will receive an updated route reflecting the real time traffic situation directly on his display panel. The information will also be updated by visual and audio

instructions, and driver's vehicle position will be displayed dynamically on the display unit.”).

Patent Owner disputes this reasoning with respect to the second wherein clause because “Petitioner confuses ‘traffic congestion data’ with ‘navigation information,’[] whereas these terms have different meanings.” Prelim. Resp. 18 (citing Ex. 2001, 18). According to Patent Owner, various aspects of Myr's written description recognize a distinction between “traffic congestion information” and “user navigation information.” *Id.* at 19 (citing Ex. 2001, 20).

Patent Owner elaborates its argument by contending that Petitioner misunderstands Myr's teachings. Specifically, Patent Owner contends that “it is clear that [the] CTU of Myr (corresponding to [the] at least one other processor . . .) does not optimize the navigation, it[] only send[s] ‘traffic congestion information’ to the vehicle, [and] the vehicle optimize[s] the navigation in its processor (corresponding to a first processor within the wireless mobile communications device).” Prelim. Resp. 19. When Myr teaches that “[t]he optimal route found is communicated to the driver,” Patent Owner says, “it means that the optimal route is communicated from the vehicle's computer to the driver by the vehicle's computer screen.” *Id.* at 19–20; *see* Ex. 1007, 2:18–21. Patent Owner supports its argument with testimony by Mr. Essen. Ex. 2001, 19–22.

We agree with Patent Owner. That is, the independent claims define systems and methods in which the “at least one other processor,” which is “*outside the network*” (emphasis added) attends to updating the navigation information in conformity with traffic congestion information. In contrast, Myr describes a system in which the CTU, i.e. what Petitioner identifies as

including the “at least one other processor outside the network,” merely *provides* traffic congestion information to the IMU processor, i.e. what Petitioner identifies as the “first processor.” In Myr, it is the IMU processor that attends to updating the navigation information. This is evident from Myr’s specific description:

Initially, those travel times are theoretical travel times but as the time goes by and observational data are being collected and processed, they are replaced by empirical travel times reflecting realistic travel conditions, and on particular occasions by current travel times, which reflect sudden and unpredictable changes in traffic conditions. Those travel times are being measured and *periodically broadcasted by the CTU* via satellite IP Multicasting broadcast *to end-users* where they are *entered into the databases of the on-vehicle computers for future use.*

Ex. 1007, 3:10–19 (emphases added). Myr elaborates that “*the end-user on-vehicle computer* applies an optimization procedure for computing an optimal route” while making use of road-section travel times that have been “updated by [the] CTU.” *Id.* at 3:20–24 (emphasis added). Patent Owner identifies specific advantages that result from its claimed systems and methods of performing navigation-information updates *remote* from the wireless mobile communications device rather than *local* to such a device, as described by Myr. *See* Prelim. Resp. 20–21.

We thus determine that Petitioner does not adequately demonstrate that the second wherein clause of the update limitation is met by Myr as Petitioner contends. We accordingly conclude that Petitioner does not demonstrate a reasonable likelihood of prevailing on its challenge of independent claims 1 and 11 as unpatentable under 35 U.S.C. § 103(a) over Myr and Yiu, nor on its challenge of claim 22 as unpatentable under 35

U.S.C. § 103(a) over Myr, Yiu, and Machida. Because Petitioner’s challenges of the various challenged dependent claims suffer from the same defect by virtue of those claims’ dependence from one of the challenged independent claims, we also conclude that Petitioner does not demonstrate a reasonable likelihood of prevailing in its challenges of claims 5, 7, 8, 11, 12, and 17–19 as unpatentable under 35 U.S.C. § 103(a) over Myr and Yiu, nor its challenges of claims 2, 6, 13, and 16 as unpatentable under 35 U.S.C. § 103(a) over Myr, Yiu, and Machida.

F. Challenges Based on Uehara

Petitioner challenges claims 1, 5, 7, 8, 11, 12, and 17–19 as unpatentable under 35 U.S.C. § 103(a) over Uehara, Yiu, and Myr; and challenges claim 22 as unpatentable under 35 U.S.C. § 103(a) over Uehara, Yiu, Myr, and Machida. Pet. 51–98. Petitioner’s element-by-element analysis of its challenges on these grounds relies primarily on Uehara, with Petitioner additionally relying on Myr for the update limitation, on Yiu for the limitations related to “preference flags,” and on Machida for limitations regarding “mapping information.” *See id.*

We again focus on the update limitation of the independent claims. Petitioner identifies the recited “first processor” with Uehara’s main control unit 2 of radio communication apparatus 14 and identifies the recited “network” with Uehara’s Bluetooth stationary station 16. *Id.* at 54. And Petitioner relies on Myr’s disclosure of using updated traffic congestion information to modify a navigation route. *Id.* at 61–64.

Petitioner does not specifically identify any structure that corresponds to the “at least one other processor outside the network.” Instead, Petitioner

contends that a person of ordinary skill in the art would have understood that “additional processing for acquiring traffic information and updating navigation information based on traffic congestion data performed by another processor coupled to the network would improve upon” Uehara’s system by “calculating updated navigation information based on accurate and updated traffic information, by segment, and sending the updated user navigation information to the wireless mobile communications.” *Id.* at 64–65 (citing Ex. 1003 ¶¶ 194–197). Petitioner relies on testimony by Dr. Michalson to support its contention, but that testimony provides no additional underlying basis to support the contention. *See* Ex. 1003 ¶ 197; 37 C.F.R. § 42.65(a) (“Expert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight.”).

As Patent Owner points out, Uehara does not specifically teach using “traffic information” to update navigation information, such that Petitioner’s argument appears based primarily on hindsight. Prelim. Resp. 32; *Sensonics Inc. v. Aerosonic Corp.*, 81 F.3d 1566, 1570 (Fed. Cir. 1996) (“To draw on hindsight knowledge of the patented invention, when the prior art does not contain or suggest that knowledge, is to use the invention as a template for its own reconstruction—an illogical and inappropriate process by which to determine patentability.”). At best, Uehara merely discloses acquisition of “updated neighborhood shop information or traffic information,” without drawing any clear connection between the acquisition of such information and the updating of navigation information. *See* Ex. 1005 ¶¶ 87–88.

In addition to finding the support for Petitioner’s contention lacking, we agree with Patent Owner’s identification of other deficiencies in

Petitioner’s analysis. For example, Patent Owner draws our attention to Uehara’s description of communication between radio communication apparatus 14 and Bluetooth stationary station 16, which Petitioner respectively identify with the recited “first processor” and “network.” Prelim. Resp. 28–29. Uehara explains that, “[a]fter establishing the connection between the radio communication apparatus 14 and the [Bluetooth] stationary station 16, neighborhood information is transferred *from* the [Bluetooth] stationary station 16 *to* the radio communication apparatus 14.” Ex. 1005 ¶ 80 (emphases added). Uehara further explains that route information “to guide the owner of the radio communication apparatus 14 to the owner’s intended destination . . . may be combined with a position information service via the mobile phone system.” *Id.* ¶ 83.

We agree with Patent Owner that “[t]he written description of Uehara shows [that] neighborhood information and guidance information are transferred from [the Bluetooth] stationary station to apparatus 14, not from apparatus 14 to [the Bluetooth] stationary station.” Prelim. Resp. 29. With the identifications Petitioner has made, this is opposite to the update limitation’s first wherein requirement that “the first processor further sends the user navigation information to the network as a number of segments.” We accordingly conclude that Petitioner does not adequately show that this wherein limitation is met by Uehara.

We thus determine that Petitioner does not adequately demonstrate that the update limitation is met by the combination of Uehara and Myr as Petitioner contends. We accordingly conclude that Petitioner does not demonstrate a reasonable likelihood of prevailing on its challenge of independent claims 1 and 11 as unpatentable under 35 U.S.C. § 103(a) over

Uehara, Yiu, and Myr, nor on its challenge of claim 22 as unpatentable under 35 U.S.C. § 103(a) over Uehara, Yiu, Myr, and Machida. Because Petitioner’s challenges of the various challenged dependent claims suffer from the same defect by virtue of those claims’ dependence from one of the challenged independent claims, we also conclude that Petitioner does not demonstrate a reasonable likelihood of prevailing in its challenges of claims 5, 7, 8, 12, and 17–19 as unpatentable under 35 U.S.C. § 103(a) over Uehara, Yiu, and Myr.

III. CONCLUSION

For the foregoing reasons, we conclude that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail in showing that at least one of claims 1, 2, 5–8, 11–13, 16–19, and 22 of the ’147 patent is unpatentable. Accordingly, we deny the Petition and decline to institute an *inter partes* review.⁷

IV. ORDER

In consideration of the foregoing, it is
ORDERED that the Petition is *denied*, and no trial is instituted.

⁷ Petitioner contends that it would be improper for us to exercise discretion under 35 U.S.C. § 314(a) or § 325(d) to deny the Petition. Pet. 98–99. Patent Owner does not advocate for such discretionary denial, and we do not reach the issue because we deny the Petition on the merits.

IPR2022-00442
Patent 10,820,147 B2

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