

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNITED SERVICES AUTOMOBILE ASSOCIATION,
Petitioner,

v.

AUTO TELEMATICS LTD.,
Patent Owner.

IPR2023-00857
Patent 10,198,879 B2

Before GEORGE R. HOSKINS, FRANCES L. IPPOLITO, and
SEAN P. O'HANLON, *Administrative Patent Judges*.

O'HANLON, *Administrative Patent Judge*.

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background

United Services Automobile Association (“Petitioner”) filed a Petition for *inter partes* review of claims 1–55 (“the challenged claims”) of U.S. Patent No. 10,198,879 B2 (Ex. 1001, “the ’879 patent”). Paper 3 (“Pet.”), 1. Auto Telematics Ltd. (“Patent Owner”) filed a Preliminary Response. Paper 8 (“Prelim. Resp.”).

Institution of an *inter partes* review is authorized by statute only when “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.” 35 U.S.C. § 314(a). A decision to institute may not institute on fewer than all claims challenged in the petition. *SAS Inst. Inc. v. Iancu*, 138 S. Ct. 1348, 1354, 1359–60 (2018). If the PTAB institutes a trial, the PTAB will institute on all challenges raised in the petition. *See* 37 C.F.R. § 42.108(a) (“When instituting . . . review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.”).

We have authority, acting on the designation of the Director, to determine whether to institute an *inter partes* review under 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a). For the reasons set forth below, upon considering the Petition, Preliminary Response, and evidence of record, we conclude that the information presented shows that there is a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of at least one of the challenged claims. Thus, we institute *inter partes* review of all challenged claims based on all asserted grounds.

B. Real Parties in Interest

Petitioner identifies itself and Noblr Reciprocal Exchange as real parties in interest. Pet. 85; Paper 6, 1.

Patent Owner identifies itself as the sole real party in interest. Paper 4, 2.

C. Related Matters

The parties indicate that the '879 patent is the subject of the following district court proceeding:

Auto Telematics Ltd. v. United Services Automobile Ass'n,
No. 6-22-cv-00474 (W.D. Tex. filed May 11, 2022).

Pet. 85; Paper 4, 2. We note that the '879 patent was also the subject of the following district court proceeding:

Auto Telematics Ltd. v. United Services Automobile Ass'n,
No. 6-23-cv-00506 (W.D. Tex. filed July 17, 2023).

The parties note that Petitioner filed two additional petitions for *inter partes* review of the '879 patent in IPR2023-00858 and IPR2023-00859. Pet. 85; Paper 4, 2. Petitioner filed a notice explaining the differences between the three petitions and ranking the petitions in the order that Petitioner wishes the Board to consider them. Paper 2. Petitioner ranks the petition filed in this proceeding first. *Id.* at 1–2.

Petitioner further notes other petitions for *inter partes* review it filed challenging related patents owned by Patent Owner. Pet. 85.

D. The Challenged Patent

The '879 patent discloses a mobile device adapted for installation to a vehicle and configured to log driving information associated with how the

vehicle is driven. Ex. 1001, 1:22–27. The '879 patent acknowledges that data logging devices for road vehicles exist, but asserts that they are difficult and costly to install. *Id.* at 1:34–58. The '879 patent purports to improve upon known data logging devices by using the driver's mobile telecommunications device, such as a smart phone, loaded with an application to provide data logging functionality. *Id.* at 2:15–26.

The mobile device contains a sensor set, including an image capture module, an accelerometer, a GPS receiver, and an audio capture module, for sampling physical data. Ex. 1001, 15:47–53. The device uses data captured by the sensors to derive driving information that is used to determine the occurrence of a driving incident, such as a collision. *Id.* at 13:36–46. For example, the accelerometer provides information regarding the pitch, yaw, and roll of the vehicle, which data may be used to determine the g-forces to which the vehicle has been subjected. *Id.* at 15:63–16:2. This data is useful in determining the severity of a collision. *Id.* at 16:2–3. The data captured by the sensors can also be used to monitor the driver's driving performance and determine a profile for the driver, which an insurance company may use to determine the driver's risk assessment on which insurance premiums are based. *Id.* at 13:46–49, 22:9–20.

E. The Challenged Claims

Petitioner challenges claims 1–55 of the '879 patent. Pet. 1–2. Claims 1, 21, 46, 51, 54, and 55 are independent. Claim 1 is illustrative of the challenged claims and is reproduced below with bracketing used by Petitioner.

1. [1.1] A mobile telecommunications device configured to log driving information associated with a vehicle, the mobile telecommunications device comprising:
 - [1.2] a sensor set comprising an image sensor, an audio sensor, an accelerometer or a positioning module, or a combination thereof;
 - [1.3] a user interface;
 - [1.4] a processor and;
 - [1.5] a memory;
 - [1.6] the mobile telecommunications device being configured to:

determine, based on at least one of the inputs received by the user interface and sensor data from the device's sensor set, a start of a driving period during which the mobile device is removably attached to the vehicle and the vehicle is in use;
 - [1.7] process the sensor data from the sensor set during the driving period to derive driving information associated with how the vehicle is driven; and
 - [1.8] store a selection of the driving information to the memory;
 - [1.9] wherein the driving information is derived without data from the vehicle sensors, and [1.10] the mobile telecommunications device is controlled by a downloaded application to control the mobile device to process the driving information to generate a driving score associated with a particular driver.

Ex. 1001, 31:43–32:2; Pet. xi.

F. Asserted Grounds of Unpatentability

The Petition relies on the following prior art references:

Name	Reference	Exhibit
Curry	WO 2010/042545 A2, published April 15, 2010	1005
Tamir	US 7,821,421 B2, issued October 26, 2010	1006

Name	Reference	Exhibit
Balachandran	US 6,073,004, issued June 6, 2000	1007
Thompson	Chris Thompson et al., “Using Smartphones to Detect Car Accidents and Provide Situational Awareness to Emergency Responders,” Mobilware 2010, LNICST 48, pp. 29–42, 2010	1008
Willis	WO 2007/114716 A1, published October 11, 2007	1009
Berkobin	US 2008/0255888 A1, published October 16, 2008	1010
Rabu	US 8,682,399 B2, issued March 25, 2014	1013
Katayama	EP 1 914 691 A1, published April 23, 2008	1024

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–3, 5, 6, 8, 11–13, 19–23, 25, 28–31, 39–44, 46–49, 51, 52, 54	103(a) ¹	Curry, Rabu
4, 24	103(a)	Curry, Rabu, Tamir
6, 7, 16, 26, 27, 34	103(a)	Curry, Rabu, Balachandran
9, 10, 14, 15, 17, 18, 32, 33, 35–38	103(a)	Curry, Rabu, Katayama
14, 15, 32, 33	103(a)	Curry, Rabu, Thompson
45, 50, 53	103(a)	Curry, Rabu, Willis
55	103(a)	Curry, Rabu, Berkobin

¹ The application resulting in the '879 patent claims priority to a date prior to when the Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112–29, 125 Stat. 284 (2011), took effect. Thus, we refer to the pre-AIA version of section 103.

Pet. 1–2. Petitioner submits a declaration of William R. Michalson, Ph.D. (Ex. 1003, “Michalson Declaration”) in support of its contentions. Patent Owner does not submit any witness testimony with its Preliminary Response.

II. ANALYSIS

A. Principles of Law

A patent claim is unpatentable 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 the 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, any objective evidence of nonobviousness.² *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

The level of ordinary skill in the art is “a prism or lens” through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). The person of ordinary skill in the art is a hypothetical person presumed to have known the relevant art at the time of

² The parties have not directed us to any such objective evidence.

the invention. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995). In determining the level of ordinary skill in the art, we may consider certain factors, including: “(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field.” *Best Med. Int’l, Inc. v. Elekta Inc.*, 46 F.4th 1346, 1353 (Fed. Cir. 2022) (quoting *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007)). “The patent’s purpose can also be informative.” *Id.*

Petitioner contends that a person having ordinary skill in the art at the time of the invention would have had “a Bachelor’s of Science Degree (or equivalent) in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, and about 2-3 years of experience in the field of telematics systems (e.g., familiarity with control and diagnostic systems, navigation systems and wireless communication technology),” and that “[a] greater amount of education, i.e., a doctorate in an academic area emphasizing electrical engineering, computer engineering, computer science, or a related technical field, would compensate for fewer years of work experience.” Ex. 1003 ¶ 15; *see also* Pet. 11 n.5 (citing same).

Patent Owner does not contest Petitioner’s proposed definition or proffer a definition of its own. Prelim. Resp. 13.

Based on the arguments presented and the cited references, we find Petitioner’s definition of the level of ordinary skill reasonable and for purposes of this Decision, adopt it as our own.

C. Claim Construction

In an *inter partes* review, claims are construed using the same claim construction standard that would be used to construe the claims in a civil action under 35 U.S.C. § 282(b), including construing the claims in accordance with the ordinary and customary meaning of such claims 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). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention” and “after reading the entire patent.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1321 (Fed. Cir. 2005) (en banc). In addition to the specification and prosecution history, we also consider use of the terms in other claims and extrinsic evidence including expert and inventor testimony, dictionaries, and learned treatises, although extrinsic evidence is less significant than the intrinsic record. *Id.* at 1312–17. Usually, the specification is dispositive, and it is the single best guide to the meaning of a disputed term. *Id.* at 1315. We also consider “[a]ny prior claim construction determination concerning a term of the claim in a civil action . . . that is timely made of record” in this proceeding. 37 C.F.R. § 42.100(b).

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

Petitioner asserts that “no express constructions are required,” but argues that, “[b]ased on plain meaning, the recited ‘driving period’

references a time period ‘during which [a] mobile device is removably attached to the vehicle and the vehicle is in use.’” Pet. 3 (second alteration in original) (citing Ex. 1003 ¶¶ 62, 123). According to Petitioner, “[t]hese attributes may be satisfied by a start of a monitoring period, whether at the onset of vehicle driving or whether instead before or thereafter.” *Id.* at 4 (citing Ex. 1003 ¶ 125).

Patent Owner disagrees with Petitioner’s interpretation of “driving period,” arguing that “[n]owhere in the ’879 [patent] specification or claims is Petitioner’s constructed term ‘monitoring period’ used or defined.” Prelim. Resp. 14. Patent Owner argues that, “[i]nstead, the claims require that the mobile device be removably attached *during* the driving period.” *Id.* Patent Owner asserts that “[t]he invention’s ability to determine the start of a driving period is an important aspect of the invention” and that “[t]he ’879 patent describes how the mobile device may be configured to determine the start of a driving period.” *Id.* at 6–7 (citing Ex. 1001, 1:64–2:14, 3:37–62). Patent Owner contends that “the terms ‘driving period’ and ‘start of a driving period’ should be construed consistent with their plain and ordinary meaning.” *Id.* at 15.

We agree with Petitioner’s interpretation to the extent that the independent claims expressly define the “driving period” as corresponding to a period during which the mobile device is removably attached to the vehicle and the vehicle is in use. Ex. 1001, 31:56–58, 33:54–56, 36:11–13, 37:4–6, 38:1–3, 38:27–29. Further, Patent Owner does not materially dispute, at this preliminary stage of the proceeding, Petitioner’s additional construction that the start of the driving period may correspond to the beginning, the middle, or the end of a vehicle’s operation. Rather, Patent

Owner’s present position is that the recited “driving period” cannot correspond to Curry’s monitoring period, regardless of whether Curry’s monitoring period starts at the beginning, the middle, or the end of a vehicle’s operation. *See* Prelim. Resp. 14–15, 31–34. For reasons provided in Section II.E.2.f below, we do not agree with that contention, based on the present record.

Further, Patent Owner quotes from a passage in the ’879 patent, stating that “if the sensor data reflects a detected speed above a predetermined threshold . . . ***this can be used to trigger the start of the driving period.***” Prelim. Resp. 7 (quoting Ex. 1001, 3:37–62). This passage supports Petitioner’s interpretation that the start of the driving period may correspond to the middle of a vehicle’s operation—that is, when the vehicle reaches a predetermined minimum speed. Moreover, given the broad nature of Petitioner’s interpretation that the start of the driving period may correspond to the beginning, the middle, or the end of a vehicle’s operation, we disagree with Patent Owner’s objections that this construction improperly “introduces unsupported *limitations*” or an “additional *limitation*” into the claims. *See* Prelim. Resp. 14–15 (emphases added). It is not clear from the present record what “limitation” Patent Owner contends Petitioner’s construction improperly incorporates into the claims.

Based on the present record, we conclude that the independent claims expressly define the “driving period” as corresponding to a period during which the mobile device is removably attached to the vehicle and the vehicle is in use. *See* Ex. 1001, 31:56–58, 33:54–56, 36:11–13, 37:4–6, 38:1–3, 38:27–29. We also conclude, based on the parties’ agreement at this stage of the proceeding, that the start of the driving period may correspond to the

beginning or the middle of a vehicle's operation. We do not decide whether the start of the driving period may correspond to the end of a vehicle's operation, as Petitioner additionally proposes, because this does not affect whether we should institute review of the challenged claims.

On this record and for purposes of this decision, we determine that no additional claim terms require express construction.

D. Overview of the Asserted Prior Art

1. *Curry*

Curry describes “monitoring and controlling the use of a mobile computing device.” Ex. 1005, code (57). Curry’s system “includes a data server containing a model of a road network specifying traffic routes at a selected location,” and a “mobile wireless computing device . . . configured [to] wirelessly communicate with the data server.” *Id.* at 3:3–5.³ Curry’s system further stores information from a GPS receiver and an accelerometer sensor in the mobile device, such as location, speed, and acceleration, and uses the information to calculate a driver safety statistic based on when and where the mobile device was used and the motion of the device. *See id.* at 3:6–30.

2. *Tamir*

Tamir discloses the collection of driving information from a plurality of vehicles and the evaluation of “driving behavior of a first vehicle based on information from at least one other vehicle or to a statistical analysis of

³ Our citations to Curry refer to the page numbers added by Petitioner at the bottom center of every page in the exhibit.

multiple other vehicles.” Ex. 1006, 2:19–23. Tamir describes that, in some embodiments, “samples are collected at a dynamically adjusted rate” and the “rate of sampling is optionally determined according to the location of the driving, for example accumulating more samples at areas where there [are] many accidents or near intersections.” *Id.* at 9:10–20. Tamir further describes that, “when it is determined that the driver is driving relatively daringly, a higher sampling rate is used.” *Id.* at 20:62–21:1.

3. *Balachandran*

Balachandran describes “enabling emergency call initiations in response to the detection of a vehicle accident.” Ex. 1007, code (57). More specifically, Balachandran relates to “the use of a cellular telephone for automatically initiating an outgoing call in response to a vehicle accident.” *Id.* at 1:6–9. Balachandran describes the importance of “automatically initiating an emergency call through a cellular telephone system in response to a vehicle accident without the need for subscriber initiation.” *Id.* at 1:27–30. Balachandran’s system “includes a plurality of sensors 10 strategically located about a vehicle to detect an accident involving the vehicle.” *Id.* at 2:19–21. In the event of an accident that warrants an emergency call, “the processor activates a timer 35 located within the cellular telephone 15,” and the “timer 35 provides a preselected time delay before initiating an outgoing emergency call in response to detection of a vehicle accident.” *Id.* at 2:50–56. An “audio or visual indication notifies the passengers of activation of the timer 35 and ceases with expiration or cutoff of the timer” to provide “the passengers in the vehicle a period of time to gather their wits after an accident.” *Id.* at 2:56–60. “After the time delay

period expires the processor 30 initiates emergency call setup.” *Id.*
at 2:64–66.

4. *Thompson*

Thompson is a university publication (“Institute for Software Integrated Systems, Vanderbilt University”) titled “Using Smartphones to Detect Car Accidents and Provide Situational Awareness to Emergency Responders.” Ex. 1008, 1.⁴ Thompson purports to provide “contributions to the study of using smartphone-based accident detection systems” and “solutions to key issues associated with detecting traffic accidents, such as preventing false positives by utilizing mobile context information and polling onboard sensors to detect large accelerations” and “the architecture of [a] prototype smartphone-based accident detection system.” *Id.*

Thompson explains that “[b]uilding a smartphone-based wireless mobile sensor network for accident detection system is hard . . . because phones can be dropped (and generate false positives) and the phone is not directly connected to the vehicle.” Ex. 1008, 2. Thompson further explains that “conventional in-vehicle accident detection systems rarely incur false positives because they rely on sensors, such as accelerometers and airbag sensors, that directly detect damage to the vehicle.” *Id.* Thompson purports to provide a solution by showing “how smartphones in a wireless mobile sensor network can capture the streams of data provided by their accelerometers, compasses, and GPS sensors to provide a portable ‘black

⁴ Our citations herein refer to the pagination added by Petitioner to the bottom, center of each page.

box’ that detects traffic accidents and records data related to accident events, such as the G-forces (accelerations) experienced by the driver.” *Id.*

5. *Willis*

Willis generally relates to “a method of determining the proximity of a first radio frequency device to a second radio frequency device” and “a method for the control of a switch based on the proximity to each other of a first radio frequency device and a second radio frequency device.”

Ex. 1009, 2:5–9. As an example, Willis discloses an embodiment that provides “proximity detection of the phone coming within 2 meters of the vehicle in any manner and from any direction.” *Id.* at 15:28–29.

6. *Berkobin*

Berkobin’s disclosure relates to “determining driver behavior [by] receiving vehicle performance data, determining a driver safety metric based on the vehicle performance data, and transmitting the safety metric to a remote host.” Ex. 1010 ¶ 2. “[A]n embedded GPS and cellular transceiver . . . support real-time, remote driver and vehicle performance metrics.” *Id.* ¶ 21. As an example, Berkobin’s apparatus includes vehicle-mounted transceivers. *Id.* ¶ 25. The apparatus “can interface and monitor various vehicle systems and sensors to determine vehicle conditions.” *Id.* ¶ 38. “[S]ubsystems can include a BlueTooth transceiver . . . to interface with devices such as phones” and “user inputs[] such as [an] emergency button . . . caus[ing a] processor 106 to initiate a voice and data connection from the vehicle to a central monitoring station . . . referred to as a remote call center.” *Id.* ¶ 44. “Data such as GPS location and occupant personal information can be transmitted to the call center.” *Id.* The apparatus “can

transmit vehicle performance data upon a triggering event such as, but not limited to vehicle crash indication, acceleration above a threshold, speed above a threshold, and the like.” *Id.* ¶ 54. Berkobin discloses the use of artificial intelligence, such as neural networks, in its methods and systems. *Id.* ¶ 31.

7. *Rabu*

Rabu “relates generally to portable media devices and in particular to determining a docking status of a portable media device using data from one or more motion sensors.” Ex. 1013, 1:7–10. Rabu’s portable media device (“PMD”) can receive input from one or more motion sensors, such as an accelerometer and a gyroscope. *Id.* at 7:11–13. “[T]he input can indicate orientation angle and motion information of the PMD.” *Id.* at 7:14–15. The PMD can determine a holder status and can determine whether it is in a moving vehicle, in a stationary vehicle, being handled by a moving person, or being handled by a stationary person. *Id.* at 7:15–16, 7:22–26. “[T]he PMD can select a mode of operation based on the holder status and the holder motion status.” *Id.* at 3:1–3.

8. *Katayama*

Katayama describes a driving monitor that records driver behavior and “a surrounding situation” during a period before and after an accident. Ex. 1024 ¶ 1. Katayama’s driving recorder includes an information processing device that includes a data receiving section, a temporary data storage section, a situation data recording section, and a data administration section. *Id.* ¶¶ 31, 44. The “data administration section 804 determines whether or not the content of the situation data stored in the temporary data

storage section 802 meets the predetermined condition,” and if so, the situation data is “transferred from the temporary data storage section 802 to the situation data recording section 803.” *Id.* ¶ 46.

E. Asserted Obviousness Based on Curry and Rabu

Petitioner argues that claims 1–3, 5, 6, 8, 11–13, 19–23, 25, 28–31, 39–44, 46–49, 51, 52, and 54 would have been obvious in view of Curry and Rabu. Pet. 6–48. In support of its showing, Petitioner relies upon the Michalson Declaration. *Id.* (citing Ex. 1003). We have reviewed Petitioner’s assertions and supporting evidence. For the reasons discussed below, and based on the record before us, we determine that Petitioner demonstrates a reasonable likelihood of prevailing in showing that at least one challenged claim would have been obvious in view of the combination of Curry and Rabu.

1. Patent Owner’s Objections to Petitioner’s Citations to Curry

“Patent Owner objects to Petitioner’s misciting of Curry throughout the Petition.” Prelim. Resp. 19. Patent Owner notes that Curry “has two differing page numbers on each page” and argues that the Petition “sometimes cites to the bottom page number and sometimes to the top page number.” *Id.* at 19–20. Patent Owner notes correctly that the Petition’s and Dr. Michalson’s citations to Curry appear to be inconsistent, referring in some instances to Curry’s original pagination, and referring in other instances to Petitioner’s added pagination. *Id.* Patent Owner argues that these inconsistencies render the Petition “substantially defective.” *Id.* at 19. Patent Owner further argues that “Petitioner often cites to large swaths of Curry over multiple pages, without quoting Curry, such that Patent Owner

must determine the sections of Curry to which Petitioner refers.” *Id.* at 21 (citing Pet. 16).

Upon reviewing the Petition and Dr. Michalson’s Declaration (Ex. 1003), generally we were able to identify the referenced disclosures of Curry despite the inconsistencies in which pagination scheme (original or added) is cited. There are *only two sets* of page numbers in Exhibit 1005, and in the substantial majority of instances it was easy to determine which set was being cited. We are not persuaded that the inconsistent citation scheme employed within the Petition and Dr. Michalson’s Declaration are of such quality or quantity to render the Petition fatally deficient. Further, we note Patent Owner’s Preliminary Response substantively addresses the Petition, indicating that Patent Owner also has reviewed the arguments and evidence presented in the Petition and has been able to respond to the same (including the cited testimony of Dr. Michalson). Accordingly, in this Decision, we have endeavored to cite consistently and only to the page numbers added by Petitioner to the bottom center of each page, even when referring to the Petition’s and Dr. Michalson’s citations, based on what we understand Petitioner and Dr. Michalson to have meant to cite based on the respective contexts of the Petition or the Michalson Declaration, respectively, and the Curry disclosure.

2. Independent Claim 1

Petitioner relies on Curry to disclose a mobile telecommunications device substantially as recited in claim 1, and relies on Rabu to teach using accelerometer data to determine if a phone is docked. Pet. 6–41.

a. The Preamble

Claim 1 recites “[a] mobile telecommunications device configured to log driving information associated with a vehicle.” Ex. 1001, 31:43–45. Petitioner refers to this recitation as element “1.1” and maps Curry’s mobile phone 106 to the recited mobile telecommunications device. Pet. 17–19 (citing Ex. 1005, 2:1–27, 3:1–4:28, 7:5–29, 8:21–27, 10:15–12:18, code (57), Fig. 1; Ex. 1003 ¶¶ 105–108).

Patent Owner does not contest this aspect of the Petition. *See generally* Prelim. Resp.

Curry discloses that mobile phone 106 is a mobile telecommunications device because it communicates wirelessly with data server 104 and it allows the user to make and receive telephone calls and text messages. *See* Ex. 1005, code (57), 2:1–27, 3:4–5, 3:24–27, 7:5–8, 7:23–24, 7:30–8:2, 8:21–23, Fig. 1.

Accordingly, for the foregoing reasons and on this preliminary record, to the extent the preamble is limiting, Curry supports Petitioner’s contentions.

b. The Sensor Set Recitation

Claim 1 recites “a sensor set comprising an image sensor, an audio sensor, an accelerometer or a positioning module, or a combination thereof.” Ex. 1001, 31:46–48. Petitioner refers to this recitation as element “1.2” and argues that Curry’s mobile phone features embedded sensors, including accelerometer 116, which Petitioner maps to the recited accelerometer, and GPS receiver 114, which Petitioner maps to the recited positioning module.

Pet. 19 (citing Ex. 1005, 3:2–15, 7:24–8:2, 8:30–9:3, 10:16–26, 11:15–25, 12:23–27, Fig. 1; Ex. 1003 ¶ 109).

Patent Owner does not contest this aspect of the Petition. *See generally* Prelim. Resp.

Curry discloses that “mobile phone[] 106 [is] equipped with GPS 114 and/or accelerometer 116 sensors.” Ex. 1005, 7:30–8:1; *see also id.* at 7:5 (disclosing that the “GPS and accelerometer sensors [are] embedded in [the] mobile phone[]”). The mobile phone stores information from the GPS receiver and the accelerometer, such as location, speed, and acceleration, and Curry’s system uses this information to calculate a driver safety statistic, based on when and where mobile phone 106 was used and the motion of mobile phone 106. *Id.* at 3:6–13, 3:24–26.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

c. The User Interface Recitation

Claim 1 recites “a user interface.” Ex. 1001, 31:49. Petitioner refers to this recitation as element “1.3” and argues that Curry’s mobile phone 106 includes “a ‘graphical user interface’ configured to display data and to enable user interactions . . . including receiving a phone call while driving, and manually switching activity modes.” Pet. 20 (emphasis omitted) (citing Ex. 1005, 8:5–27, 9:5–27, 10:5–26, 11:15–26, 13:20–26, 16:7–22, 21:15–17, 21:23–25, 21:23–25; Ex. 1003 ¶¶ 111–115).

Patent Owner argues that Petitioner fails to establish that Curry discloses the recited user interface. Prelim. Resp. 25–31. Patent Owner argues that the Petition maps the recited user interface “to multiple elements

both on and off the mobile phone 106 of Curry.” *Id.* at 26 (emphasis omitted) (citing Pet. 20–21). Patent Owner argues that Curry discloses “[a] graphical user interface . . . on a data input device 102, such as a computer, laptop, smart phone, or other computerized device,” which is not the mobile phone 106.” *Id.* (alternations in original) (citing Ex. 1005, 8:5–27). Patent Owner acknowledges that “Curry may describe ‘examples of UI-enabled user interactions including receiving a phone call while driving, and manually switching activity modes,’” but argues that “these features allegedly disclosed by Curry for performance by and within the mobile phone client 110 of Curry are limited and otherwise do not read on the independent claims of the ’879 patent.” *Id.* at 31.

We conclude that Petitioner’s contentions as to the recited “user interface” are sufficiently supported by the evidence of record to justify institution of review. In particular, we agree with Petitioner’s contention that Curry’s mobile phone 106 (specifically) features a graphical user interface to display data and enable user actions, such as receiving phone calls and manually switching activity modes. *See* Pet. 20. This is reflected by the Curry disclosures cited by Petitioner. *See id.* As a first example, the cited disclosures indicate that mobile phone 106 provides “talking” and “texting” functionality. Ex. 1005, 7:5–8, 7:23–26, 8:10–11, 9:7–20. As a second example, the cited disclosures indicate that a “user can download the required software from the server 104 to the mobile phone 106 to set up the client unit on the phone” by generating “a request from the client unit [110] on the mobile phone [106].” *Id.* at 8:20–27. As a third example, the cited disclosures indicate “the user of the phone [106]” may activate “a driving safety monitoring program on a mobile phone client [110].” *Id.* at 13:20–26.

In each of these ways, Curry indicates that mobile phone 106 includes a user interface, as recited in claim 1.

Thus, Dr. Michalson testifies (with quotes from Curry) that:

A POSITA would have understood and found obvious that the Curry-Rabu phone includes a user interface. For example, Curry notes that a “graphical *user interface*” can be installed on a “smart phone,” indicates that the “graphical user interface” can be “configured to display the driver motion data cache, the user permission data, and the driver safety statistic to . . . selected individuals,” and additionally describes various examples of user interactions with a phone that a POSITA would have understood to be enabled through a user interface. USAA-1005, 8:5-27 (“A user can download the required software from the server 104 to the mobile phone 106 to set up the client unit on the phone”), 20:23-25, 9:5-11 (“the mobile phone . . . may be used while driving, walking or remaining still”), 9:13-20 (“[t]he phone can . . . signal to the driver . . . so that the driver can decide whether to . . . take [a] call or call back later”), 10:15-26 (“[i]f the status of the mobile phone user is recognized as driving, the mobile phone can automatically switch to the GPS navigation mode”).

Ex. 1003 ¶ 112 (alterations in original).

We acknowledge that a portion of the Curry disclosures cited by Petitioner and Dr. Michalson for the recited “user interface” states “[a] graphical user interface can be installed on a data input device 102” and refers to user interactions via “an interactive user control website” at data server 104, as opposed to mobile phone 106. Ex. 1005, 8:5–6, 9:23–28. Nonetheless, we conclude that other disclosures in Curry, summarized above, reflect that Curry’s mobile phone 106 also has a user interface, sufficiently to justify institution of review.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

d. The Processor Recitation

Claim 1 recites “a processor.” Ex. 1001, 31:50. Petitioner refers to this recitation as element “1.4” and argues that the processes of Curry’s mobile phone 106 “may be ‘implemented in software for execution by various types of processors.’” Pet. 21 (citing Ex. 1005, 6:3–10). Petitioner argues that an ordinarily skilled artisan would understand Curry’s disclosure of downloading software for mobile client 110 to the mobile phone and recording of sensor data to local motion data cache 118 “for further processing” to indicate that the mobile phone includes a processor. *Id.* (citing Ex. 1005, 2:22–27, 3:24–26, 6:3–10, 8:20–27, 8:30–9:1; Ex. 1003 ¶¶ 116–119).

Patent Owner does not contest this aspect of the Petition. *See generally* Prelim. Resp.

Curry discloses that mobile phone 106 downloads a “mobile device control module” or client unit 110 to be operated on mobile phone 106, using “various types of processors.” Ex. 1005, 3:13–14, 6:3–4, 7:8–13, 8:21–27, Fig. 1.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

e. The Memory Recitation

Claim 1 recites “a memory.” Ex. 1001, 31:51. Petitioner refers to this recitation as element “1.5” and argues that an ordinarily skilled artisan would understand that Curry’s mobile phone 106 includes a memory

at least because Curry explains that “the term ‘mobile phone’ can include any type of electronic mobile computing device,” and because a POSITA would have understood that “[a]t the

most basic level, a computer is a device consisting of . . . [a] processor . . . [a] memory to store both data and programs . . . [and a] mechanism for transferring data”

Pet. 21–22 (alterations in original) (citing Ex. 1005, 6:3–10; Ex. 1003 ¶ 120). Petitioner argues that Curry discloses downloading software for client unit 110 and argues that an ordinarily skilled artisan “would have understood both that the downloading of a program to a phone implies the existence of internal memory within the phone to which the program is downloaded, and that the term ‘cache’ refers to local memory.” *Id.* at 22 (citing Ex. 1005, 3:24–26, 8:20–27, Fig. 1; Ex. 1003 ¶ 122).

Patent Owner does not contest this aspect of the Petition. *See generally* Prelim. Resp.

Curry describes how mobile phone 106 “stores” executable computer code “in different locations” such as a “cache,” which demonstrates a memory in mobile phone 106. Ex. 1005, 3:24–26, 6:3–20, 8:26–9:3.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

f. The Determine Recitation

Claim 1 recites,

the mobile telecommunications device being configured to:
determine, based on at least one of the inputs received by the
user interface and sensor data from the device’s sensor set, a
start of a driving period during which the mobile device is
removably attached to the vehicle and the vehicle is in use.

Ex. 1001, 31:52–58. Petitioner refers to this recitation as element “1.6” and presents two alternative mappings. Pet. 23–27. For the first alternative, Petitioner argues that Curry’s mobile phone 106 determines the start of a

driving period during which the phone is located within a moving vehicle based on user inputs received when a user accepts a phone call or manually switches between activity modes, and motion sensor data generated by the phone's accelerometer. *Id.* at 24–25 (citing Ex. 1005, 7:5–22, 8:30–9:33, 13:20–14:26, 16:7–22, Fig. 3; Ex. 1003 ¶ 130). Petitioner argues that “Rabu would have motivated [an ordinarily skilled artisan] to enhance Curry’s phone by configuring it to leverage orientation data from the same accelerometer to determine whether the phone is removably attached to the vehicle.” *Id.* (citing Ex. 1013, 3:1–10, 4:21–33, 8:13–10:42, 15:7–22, Figs. 1, 4, 5, 7, 8; Ex. 1003 ¶ 129).

For the second alternative, Petitioner argues that Curry’s mobile phone 106 determines the start of a driving period based on user input of accepting an incoming call or text or placing an outgoing call, and sensor data generated by the GPS sensor and accelerometer upon such interaction with the phone to determine whether the user is talking or texting while driving. Pet. 25–26 (citing Ex. 1005, 16:7–22, Fig. 4; Ex. 1003 ¶ 131). Petitioner relies on Rabu to teach using accelerometer data to determine whether the phone is attached to a docking station to differentiate whether the phone is hand-held or attached to the vehicle. *Id.* at 26 (citing Ex. 1013, 1:36–52, 6:49–7:6; Ex. 1003 ¶ 132).

Petitioner argues that it would have been obvious to integrate “Rabu’s dock-status sensing and associated mode-shifting capabilities into Curry’s phone to promote safe driving.” Pet. 11 (citing Ex. 1003 ¶¶ 88–89). Petitioner argues that this modification would allow Curry’s mobile phone to determine, upon a user accepting a call or switching activity modes, the phone’s operating mode and, if appropriate, restrict phone interactions. *Id.*

at 11–14 (citing Ex. 1005, 16:30–17:7, Figs. 3, 6; Ex. 1013, 1:36–2:14, 3:1–10, 4:21–33, 5:53–7:6, 8:13–10:42, 12:26–38, 15:7–22, Figs. 1, 4, 5, 7, 8; Ex. 1003 ¶¶ 88–94). Petitioner asserts additional benefits resulting from the combination. *Id.* at 15–16.

Patent Owner makes four main arguments. These are: (1) “Petitioner does not clearly and completely map portions of Curry and/or Rabu to every element of” claim 1 (Prelim. Resp. 21); (2) Petitioner provides insufficient rationale to combine Curry and Rabu because Petitioner’s rationales are generic and conclusory (*id.* at 46–51); (3) Petitioner’s rationales to combine Curry and Rabu are based on impermissible hindsight (*id.* at 52–55); and (4) Curry teaches away from the ’879 patent (*id.* at 55–58).

We conclude that Petitioner has explained with supporting evidence how the combination of Curry and Rabu teaches or suggests the Determine Recitation sufficiently to justify institution of review.

As discussed above, Curry’s system includes a mobile client unit 110 on GPS-enabled mobile phone 106, with GPS 114, accelerometer 116 sensors, and wireless connection 108. Ex. 1005, 7:30–8:23. Curry teaches that, “[b]y utilizing GPS and accelerometer sensors embedded in mobile phones to monitor driving safety performance, an integrated and economical solution can be created to detect and prevent unsafe driving.” *Id.* at 7:5–8. Curry further discloses that a “monitoring mode” may be activated by the user, such as by receiving or making a call. *Id.* at 13:20–26. During this monitoring period, Curry’s “GPS receiver 314 can collect location and speed data of the mobile device” and “accelerometer 316 can collect acceleration/deceleration data in different axes.” *Id.* at 13:27–29. Curry adds that “[e]ach motion measurement from the GPS sensor and

accelerometer can be associated with a timestamp, and stored in a local motion data cache 304 for each pre-specified sampling interval.” *Id.*

at 13:29–31. In addition, referring to Figure 4, Curry teaches,

Right after an *incoming phone or text message is received or an outgoing phone call is made, the GPS sensor and accelerometer can start to record a motion time series.*

Regardless if the phone communication process (i.e. phone call or text message) is complete or not, the sensors can continue to collect the data for an extended time period, e.g. 6 minutes, to determine the type of the current activity.

Id. at 16:7–13 (emphasis added).

Based on at least this disclosure, we agree with Petitioner that taking an incoming phone call, texting a message, or placing an outgoing phone call, as Curry describes, teaches or suggests “inputs received by the user interface” as recited in claim 1. *See* Pet. 24 (“Curry describes multiple embodiments in which a phone determines a start of a driving period during which the phone is located within a moving vehicle, based on user inputs received through the phone’s user interface . . . and motion sensor data generated by a phone’s embedded accelerometer . . .”). Moreover, we agree that Curry’s monitoring mode may be activated by one of these user actions *and* the “sensor data from the device’s sensor set” (as recited in claim 1) that is in the form of GPS and accelerometer data. *See* Ex. 1005, 16:7–13.

Patent Owner contends that Curry’s monitoring mode is triggered by a phone call being received or made, regardless of driving status. Prelim. Resp. 31–32 (citing Ex. 1005, 13:20–26). Patent Owner contends that an ordinarily skilled artisan would not understand that the start of a driving period could be triggered by a phone call to collect data for determining an

activity mode. *Id.* at 32–33. According to Patent Owner, “[t]his is at least because the ‘monitoring’ in Curry . . . refers to monitoring for a phone call being received or made and monitoring GPS and accelerometer data during the phone call and some time thereafter, but not for the entire ‘driving period,’” despite that this is done “to block calls from being made or received while driving.” *Id.* (citing Ex. 1005, 4:16–28, 8:29–9:20, 11:3–14, 13:20–14:26, Fig. 4). Patent Owner adds that if “a phone call is never received or made” then “Petitioner’s Curry-Rabu phone would never record the start of a driving period” and the Determine Recitation “would never be realized.” *Id.* at 34.

Based on the preliminary record, we consider Patent Owner’s reading of Curry to be too narrow. As discussed above, Curry teaches the use of GPS and accelerometer sensors embedded in mobile phone 106 “to monitor *driving* safety performance” and provide “an integrated and economical solution . . . to detect and prevent unsafe *driving* behavior such as talking on or texting with mobile phones *while driving*.” Ex. 1005, 7:5–8 (emphases added). Curry expressly discloses that the features described in the reference apply to monitoring driving and driving safety. That being the case, we are not persuaded by Patent Owner’s assertion that an ordinarily skilled artisan would consider Curry to lack “a start of a driving period” because a phone call may never be placed or received. *See* Prelim. Resp. 34. Rather, Curry specifically teaches that a phone call may be placed or received during the driving of a vehicle, which then activates the monitoring mode. Furthermore, “combinations of prior art that sometimes meet the claim elements are sufficient to show obviousness.” *Unwired Planet, LLC v. Google Inc.*, 841 F.3d 995, 1002 (Fed. Cir. 2016).

We are also not persuaded that a phone call is excluded from the scope of an “input[] received by the user interface” as recited in the Determine Recitation. *See* Prelim. Resp. 32 (“Although Petitioner argues . . . that the start of a driving period could be triggered by a phone call to collect data for determining an activity mode (*see* Pet. at 23-27), [an ordinarily skilled artisan] would have understood that this is not what is intended nor recited by the ’879 patent’s claims.”). Patent Owner does not direct us to where or how the language of claim 1 supports its position. Nor does Patent Owner provide any other evidence to bolster this position, whereas Petitioner has provided arguments supported by citations to Curry’s disclosure that are consistent with our understanding of the cited disclosure and the express claim language. Claim 1 requires that the mobile telecommunications device is configured to “determine, based on at least one of the inputs received by the user interface and sensor data from the device’s sensor set, a start of a driving period.” Ex. 1001, 31:54–58. At this stage of the proceeding, Petitioner has sufficiently explained that a phone call either placed or answered provides a user interface input that is used with GPS and accelerometer sensors to start the recording of a “motion time series.” Ex. 1005, 16:8–10, Fig. 5. Nonetheless, to the extent that there is a disagreement regarding claim scope or construction, the parties are invited to brief this issue during the trial.

Next, we determine Petitioner has sufficiently explained that Rabu teaches “the mobile device is removably attached to the vehicle and the vehicle is in use,” as recited in the Determine Recitation, because:

- (1) Rabu’s PMD can be docked and undocked to a holder on a vehicle;
- (2) holder status can be calculated based on orientation angle; (3) the PMD

can determine if the PMD is in a moving vehicle; and (4) the PMD selects a mode of operation based on the holder motion status.

In particular, Rabu teaches that a PMD may have a holder status, which can indicate how the PMD is being held and whether the PMD is in motion. *See* Ex. 1013, 2:52–60. Rabu discloses that

the PMD can determine holder status by calculating the orientation angle of the PMD with respect to a surface, e.g., ground, dock, etc. The value of the orientation angle can be used to determine the holder status. In some embodiments, the PMD can determine a frequency spectrum associated with its current motion based on inputs from the accelerometer and the gyroscope. Based on the determined frequency spectrum, the PMD can determine whether it is in a moving vehicle, in a stationary vehicle, being held by a moving person, or being held by a stationary person.

Id. at 1:66–2:8 (emphases added). Referring to Figures 1–3, Rabu further teaches that a PMD may be configured to connect to a dock (e.g., automobile dock, vehicle holder) and that the orientation angle of a PMD “when it is being held by a person will be different than the orientation angle when PMD 100 is docked in a dock.” *Id.* at 3:38–41, 3:59–67. Rabu further teaches that the PMD selects modes of operation based on the holder motion status. *Id.* at 2:8–11, 5:53–60, Fig. 5.

In addition, Dr. Michalson explains on behalf of Petitioner that, [t]o further promote safe driving, Curry suggests correlating different activity modes (e.g., stop, driving) with different operating modes (e.g., different levels of restrictions on phone use), and accounting for the context of phone usage when generating a driving score for a particular driver. For example, in one embodiment, Curry contemplates an all-or-nothing approach to restrictions on phone activity when phone 106 is placed in a monitoring operating mode, [and] it elsewhere recognizes that such an approach is not always appropriate, and

that it can be better to correlate different driving contexts with different phone restrictions.

Ex. 1003 ¶ 91 (citing Ex. 1005, 3:3–4:28, 15:8–16:33). Dr. Michalson further testifies that a person of ordinary skill in the art would have looked to Rabu for a more nuanced approach because “Rabu’s defined modes of operation include appropriate levels of restrictions on phone use.” *Id.*

¶¶ 92–95. According to Dr. Michalson, if Rabu’s PMD “is being held by the driver,” then it can “prevent the driver from sending or receiving text messages while driving.” *Id.* ¶ 95 (citing Ex. 1013, 12:38–43). Or, if “the phone is held within a dock located within the vehicle,” an ordinarily skilled artisan would have found it obvious to “provide a basis for changing the phone’s mode of operation to one involving relatively fewer restrictions to phone use.” *Id.* (citing Ex. 1013, 3:1–10, 4:21–33, 6:39–43, Figs. 1, 4).

Dr. Michalson further explains,

The Curry-Rabu combination would have increased user tolerance for Curry’s monitoring techniques. For example, Rabu’s docking status enabled a determination of when phone 106 is docked within a moving vehicle, which can then be inferred to mean that a user is not presently using phone 106 for texting when the vehicle is being driven. Rabu’s docking status would have also improved Curry’s use of an estimated context of mobile phone use in identifying unsafe driving behaviors. For example, the docking status would have enabled differentiation between (i) a user holding and using the phone while driving and (ii) using the phone while docked and while driving. The second scenario in this example is less likely to distract the user and less likely to be determined to represent an unsafe driving behavior.

Id. ¶ 98 (citing Ex. 1005, 7:5–22, 8:5–18, 11:3–14; Ex. 1013, 1:36–2:14).

Based on the preliminary record, Dr. Michalson’s testimony is consistent with the disclosures of Curry and Rabu. For example, Curry

contemplates switching between communication mode and GPS mode depending on the complexity of the driving conditions. Ex. 1005, 15:18–21. Curry further discloses that commercial fleet drivers may need to communicate with dispatchers or other drivers using a cell phone while driving. *Id.* at 15:8–10. Rabu specifically addresses the need for a similar multi-modal approach for PMDs. For example, Rabu’s Figure 5 is reproduced below:



PMD Modes	Description
A	PMD handheld while located in a moving vehicle.
B	PMD resting in a moving vehicle
C	PMD handheld while person is in motion.
D	PMD docked in a moving vehicle
E	PMD docked in a desktop dock and stationary
F	PMD resting on a stationary surface
G	PMD docked in a stationary vehicle

FIG. 5

Figure 5 is a table listing various modes of operation of Rabu’s PMD. *See* Ex. 1013, 2:28–30. As shown in Figure 5, Rabu teaches PMD modes A through G, with each mode being selected based on the motion status of the PMD. *See id.* at 5:53–56.

Patent Owner argues that Petitioner provides insufficient, conclusory rationale(s), or relies solely on impermissible hindsight, for the asserted combination of Curry and Rabu. *See* Prelim. Resp. 44–55. For example, Patent Owner contends that the use of “a ‘generic’ or ‘generally conventional’ accelerometer” does not sufficiently explain why an ordinarily

skilled artisan would look to combine these references. *Id.* at 49–50; *see also id.* at 50 (“Petitioner argues that the individual elements were known in the cited references and that combining those references would have yielded the claimed invention, [but] Petitioner fails to explain why [an ordinarily skilled artisan] would have combined those elements in the claimed manner.” (emphasis omitted)), 49 (“Petitioner states what [an ordinarily skilled artisan] could have done by combining Curry and Rabu but again fails to provide sufficient support or rationale for why [an ordinarily skilled artisan] would have been motivated to combine Curry and Rabu.” (emphases omitted)). However, as discussed, Petitioner explains in detail that Curry discloses situations in which mode switching may be appropriate and that an ordinarily skilled artisan would have looked to Rabu’s multi-modal, dockable PMD to provide a driver more options for switching between modes to achieve better user compliance/tolerance. *See* Ex. 1005, 15:8–23; Ex. 1013, Fig. 5; Ex. 1003 ¶¶ 104, 111.

Patent Owner does acknowledge that Petitioner provides several advantages for the asserted combination. *See, e.g.*, Prelim. Resp. 46–49. According to Patent Owner, Petitioner argues that

“[a POSITA] would have found obvious integration of Rabu’s dock-status sensing and associated mode-shifting capabilities into Curry’s phone to promote safe driving.” Pet. at 11. Petitioner reasons that “the resulting Curry-Rabu device would define and determine different types of driving periods based on user inputs and sensor data, and restrict phone use and/or adjust user driving scores depending on a type of driving period determined.” *Id.*

Prelim. Resp. 46 (alterations in original). Nonetheless, Patent Owner contends that “Petitioner’s rationale of enhancing Curry’s phone[] ‘to

promote safe driving’ and creating a device with added functionality . . . are nothing but unsupported conclusory statements that the combination ‘would have been obvious’ based merely on a piecemeal construction relying on impermissible hindsight.” *Id.* at 46–47 (citing *In re Van Os*, 844 F.3d 1359, 1361 (Fed. Cir. 2017)). Yet, Patent Owner does not explain adequately why we must ignore the advantages and benefits that Petitioner asserts a person of ordinary skill in the art would have understood results from addressing a problem identified in Curry with features disclosed in Rabu’s system. Rather, at this stage, between the parties, Patent Owner’s arguments are the more conclusory of the two.

Moreover, Petitioner’s arguments are supported by Dr. Michalson’s testimony that “configuring Curry’s systems to leverage Rabu’s teachings would have required only routine programming knowledge, which was well within the skill of [an ordinarily skilled artisan] prior to the earliest effective filing date.” Ex. 1003 ¶ 103. Dr. Michalson asserts that “Rabu and Curry both use the same type of hand-held phone and contain the same types of internal sensors (GPS, accelerometers)” and “the change would have amounted to nothing more than the use of a known technique to improve similar devices – in each instance a smart phone equipped with a generic accelerometer – in a similar way, and combining prior art elements according to known methods to yield the predictable results described above.” *Id.*

Patent Owner takes issue with this aspect of Dr. Michalson’s testimony on the basis that it “merely recognizes that the [ordinarily skilled artisan] could have done it, not would have done it, given the very different purpose of Rabu for detecting docking status using frequency analysis of

motion sensor data.” Prelim. Resp. 51 (emphases omitted). In this regard, we understand Dr. Michalson’s testimony to support the notion that a person of ordinary skill in the art would have had a reasonable expectation of success for achieving the asserted modification. *See* Ex. 1003 ¶¶ 103–104. As such, Dr. Michalson’s opinion supports Petitioner’s position that a person of ordinary skill in the art “could have done it.” Indeed, that is the point of the testimony, which complements Dr. Michalson’s statements elsewhere detailing the advantageous reasons for why a POSITA “would have done it.” *See id.* ¶¶ 88–102.

Next, Patent Owner argues that an ordinarily skilled artisan “would not have been motivated to look to Curry to arrive at the ‘879 patent’s claims at least because Curry would have discouraged the [artisan] from using always-on navigation and positioning, which the invention uses.” Prelim. Resp. 56. Patent Owner further contends that “[n]othing in Curry suggests that using the frequency spectrum of Rabu to determine how a vehicle is being driven would instead be better than using always-on GPS or other positioning for mitigating Curry’s cited power consumption issues such that it would make technical sense to put Curry and Rabu together to arrive at the ‘879 Patent.” *Id.* at 57. Patent Owner also contends that an ordinarily skilled artisan would have been discouraged to combine Curry with Rabu because Rabu’s frequency spectrum positioning determination would likely require even more processing power than Curry’s system alone. *Id.* (citing Ex. 1013, 4:15–5:14).

Based on the preliminary record, we do not agree that Curry teaches away from the proposed combination. Curry teaches that the GPS receiver in the mobile phone is “typically turned off by default when a mobile phone

is in standby mode or . . . is not charged.” Ex. 1005, 14:28–30. Curry teaches that this reduces battery consumption because the GPS receiver is re-activated only right after a phone call is made or received. *Id.* at 14:32–33. Curry also teaches that this approach causes delays and problems with reliability. Specifically, Curry discloses,

If the position of the current phone call is different from the position of the previous phone call, which is most likely to occur for a talking-while-driving user, then the *GPS receiver needs a cold start, which takes about from 30 seconds to 2 minutes*. If the user only takes a couple of seconds to answer the phone call or view the text message, after the communication process completes, *the GPS sensor may . . . not [have] received any reliable GPS location data yet, or may not have sufficient data to make a high-quality estimation for user activity mode*.

Id. at 14:33–15:7 (emphases added). In other words, Curry discusses both the advantages and disadvantages of turning the GPS receiver off when the phone is not in use. Curry does not discourage or discredit the “always-on” GPS mode. *Id.* at 14:30–32. Rather, Curry merely discusses alternative ways to operate the GPS, including the benefits of reduced power consumption offset by the issues of delays and compromised reliability. *Id.* “[A] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Mouttet*, 686 F.3d 1332, 1333–34 (Fed. Cir. 2012). “[T]he ‘mere disclosure of alternative designs does not teach away.’” *Id.* at 1334. “[J]ust because better alternatives exist in the prior art,” the Federal Circuit has explained, “does not mean that an inferior combination is inapt for obviousness purposes.” *Id.*

Finally, Patent Owner contends that an ordinarily skilled artisan would not have looked to Rabu for insight to arrive at the challenged claims because “the use of frequency spectrum data to determine motion and orientation of a phone would not have been necessary to arrive at the claims of the ‘879 patent.” Prelim. Resp. 57 (citing Ex. 1001, code (57)). According to Patent Owner, “the frequency spectrum technology would have been considered excessive by [an ordinarily skilled artisan] at the time of the ‘879 invention.” *Id.*

We note initially that Patent Owner has offered little evidence on this point beyond attorney argument. *See* Prelim. Resp. 57. On the other hand, for the purposes of institution, Petitioner has articulated a reasoned explanation why an ordinarily skilled artisan would have been motivated to modify Curry’s wireless device with Rabu’s device holder and multi-modal operation features. For example, Petitioner has explained in detail that Curry contemplates the need for multi-modal operation for nuanced driving conditions and that Rabu discloses methods for doing so. *See* Ex. 1005, 15:8–31; Ex. 1013, Fig. 5. Moreover, as discussed, Petitioner has provided citations to the references along with corroborating testimony from Dr. Michalson that support its arguments for why and how an ordinarily skilled artisan would have combined the prior art disclosures with a reasonable expectation of success. *See* Ex. 1003 ¶¶ 88–104. Thus, for the purposes of institution, Petitioner’s position is better supported by the preliminary record. The parties are, however, encouraged to develop the record on these issues during trial.

Accordingly, for the forgoing reasons and on this preliminary record, Curry and Rabu support Petitioner’s contentions. We determine that

Petitioner sets forth reasoning with rational underpinning as to why a person having ordinary skill in the art would have combined the teachings of Curry and Rabu. *See* Pet. 11–17.

g. The Process Recitation

Claim 1 recites “the mobile telecommunications device being configured to . . . process the sensor data from the sensor set during the driving period to derive driving information associated with how the vehicle is driven.” Ex. 1001, 31:59–61. Petitioner refers to this recitation as element “1.7” and argues that Curry’s mobile phone 106 processes data recorded by accelerometer 116 “to derive ‘driving behavior’ information, e.g., ‘talking . . . or texting . . . while driving’ and ‘speeding, abnormal acceleration, abnormal deceleration, and taking sharp turns.’” Pet. 27 (alterations in original) (citing Ex. 1005, 7:13–29, 8:21–27, 8:30–9:33, 10:15–26, 11:3–17; Ex. 1003 ¶¶ 134–135). Petitioner argues that Curry’s mobile phone processes this data during the driving period because user activity mode recognition program 120 “‘estimates the context of mobile phone use’; ‘[f]or example . . . driving, walking or remaining still.’” *Id.* at 28–29 (alterations in original) (citing Ex. 1005, 9:1–11).

Patent Owner argues that “Curry’s mobile device post-processes data only after a call is received or made to ‘estimate[] the context of mobile phone use.’” Prelim. Resp. 35 (alteration in original) (citing Ex. 1005, 9:5–20, 11:3–14, 13:20–14:26, 16:7–22). Patent Owner argues that Curry’s mobile phone “monitors whether a user is driving at the time of a call, . . . which would defeat the purpose of the ‘879 patent for continuously monitoring, by the mobile device, how a vehicle is being driven.” *Id.* Patent

Owner notes that Petitioner contends Curry uses the asserted driving information to generate a driving safety score and argues that none of the portions of Curry cited by Petitioner disclose processing sensor data to derive driving information. *Id.* at 35–37 (citing Pet. 27).

However, as discussed in Section II.E.2.f above regarding the Determine Recitation, we are not persuaded that a phone call is excluded from the scope of an “input[] received by the user interface” as recited in the Determine Recitation. For similar reasons, we are also not persuaded that Curry’s mobile phone 106 does not process sensor data from its GPS and accelerometer sensors during the driving period to derive driving information associated with how the vehicle is driven, as recited in the Process Recitation. Patent Owner does not direct us to where or how the language of claim 1 supports its position. For example, the recitation at issue does not recite “continuously” and requires only that the sensor data is processed during the driving period to derive driving information. *See* Ex. 1001, 31:52–53, 31:59–61. Nor does Patent Owner provide any other evidence to bolster its position, whereas Petitioner has provided arguments supported by citations to Curry’s disclosure that are consistent with our understanding of the cited disclosure and the express claim language.

In particular, Curry teaches,

When a call is made or received using a mobile phone 106, the mobile phone client 110 can record location, speed and acceleration data from sensors embedded in the wireless device, such as a GPS sensor 114 and accelerometer 116. *The data can be recorded to a local motion data cache 118 for further processing. . . .*

. . . .

Based on collected data in the motion data cache 118, *a user activity mode recognition program 120 estimates the*

context of mobile phone use. For example, the mobile phone or other electronic device may be used while driving, walking or remaining still. The user activity mode recognition program can be used to determine if the use of a mobile phone in the related context violates the pre-set permission policies.

Ex. 1005, 8:30–9:11 (emphases added). Further, Curry teaches,

If a phone call is received at the mobile phone 106 and the user mode is recognized as driving, a dynamic call handling program 122 that is in communication with the activity mode recognition program 120 can be used to enable phone 10[6] to communicate to a caller that the mobile phone user is currently driving.

Id. at 9:14–18. Referring to Figure 3, Curry discloses that, “[i]f the activity mode is recognized in *real-time*, the dynamical call handling module 308 can allow or disallow users to receive or make a call, text a message, play games, or use other components or software programs on a . . . mobile phone.” *Id.* at 14:5–8 (emphasis added). Further, these programs or modules 120, 122, 308 are located on mobile phone 106, not at data server 104. *See id.* at 9:5–20, 14:5–16, Figs. 1, 3.

In addition, consistent with this disclosure, Dr. Michalson testifies that an ordinarily skilled artisan would have found it obvious that Curry’s client application 110 “causes the Curry-Rabu phone to process sensor data from [the] phone’s sensor set during the determined driving period to derive ‘possible violations of mobile phone use or unsafe driving behavior’ (*‘driving information associated with how the vehicle is driven’*).”

Ex. 1003 ¶ 138.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

h. The Store Recitation

Claim 1 recites “the mobile telecommunications device being configured to . . . store a selection of the driving information to the memory.” Ex. 1001, 31:62–63. Petitioner refers to this recitation as element “1.8” and presents two alternative mappings. Pet. 31–33. For the first alternative, Petitioner argues that “the plain meaning of a ‘selection of the driving information’ is not limited to a selection of a subset of the same, but instead is broad enough to encompass selection of some or all of that information.” Pet. 31–32. Petitioner argues that it would have been obvious to an ordinarily skilled artisan “to store all or a subset of the derived driving information in the memory of the Curry-Rabu phone, and thus, to store a selection of the driving information to the memory.” *Id.* at 31 (citing Ex. 1003 ¶ 142).

For the second alternative, Petitioner argues that, “to the extent that this limitation is narrowly interpreted,” it would have been obvious to an ordinarily skilled artisan “to store in the Curry-Rabu phone a subset of . . . the recorded sensor data and derived driving behavior information” because

Curry explains that “motion data cache can be compared with the user permission data to enable a driver safety statistic to be calculated,” indicating that specific aspects of recorded sensor data are more useful for storage and transmission to safety data server 104 (e.g., motion data and related derived information indicating possible use violations, and/or unsafe driving behaviors).

Pet. 32 (citing Ex. 1005, 3:24–4:6, 7:5–22, 8:29–10:12, 13:20–16:6, Fig. 1; Ex. 1003 ¶ 142).

Patent Owner does not contest this aspect of the Petition. *See generally* Prelim. Resp.

Based on our review of the preliminary record, we agree with Petitioner’s position that Curry’s mobile phone 106 stores a selection of driving information to memory. For example, Curry states that “the mobile phone client 110 can record location, speed and acceleration data from sensors embedded in [mobile phone 106], such as a GPS sensor 114 and accelerometer 116,” in “local motion data cache 118” of mobile phone 106. Ex. 1005, 8:29–9:3, Fig. 1. Patent Owner does not address the potential claim construction issue concerning the term “selection” raised in the Petition. Based on the present record, we agree with Petitioner’s position that a person of ordinary skill in the art would have been motivated in some instances to configure Curry’s mobile phone 106 to store *less than all* of the driving information data recorded by the mobile phone’s sensors, such as only the data that indicates possible use violations or unsafe driving behavior. *See* Pet. 32. This contention is supported by Curry’s discussions concerning the relative importance of some driving information over other driving information. *See* Ex. 1005, 3:24–4:11, 7:5–9, 13:31–14:4, 15:8–16:6. This includes, as Dr. Michalson testifies, storing: (1) only data that reflects “possible violations of use” or “unsafe driving behavior,” or (2) only data that a particular person, such as the driver’s parents or insurance company, is interested in receiving. Ex. 1003 ¶¶ 142–144.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

i. The Vehicle Sensors Recitation

Claim 1 recites “wherein the driving information is derived without data from the vehicle sensors.” Ex. 1001, 31:64–65. Petitioner refers to this

recitation as element “1.9” and argues that an ordinarily skilled artisan “would have found it obvious to configure a Curry-Rabu phone to derive driving information based on its recorded sensor data alone when considering Curry’s disclosures of data obtained by embedded sensors (e.g., accelerometer 116) being used to derive the driving information.” Pet. 33 (citing Ex. 1005, 2:1–27, 3:24–4:11, 7:5–22, 8:29–10:12, 13:20–16:6, code (57), Figs. 1, 3; Ex. 1003 ¶ 146). Petitioner asserts that, “[i]n those disclosures, Curry never once describes or suggests leveraging the vehicle’s sensors.” *Id.*

Patent Owner does not contest this aspect of the Petition. *See generally* Prelim. Resp.

We determine, based on the preliminary record, that Petitioner has provided adequate reasoned explanations with citations to evidence that support its position that Curry’s mobile phone 106 derives its driving information without data from vehicle sensors. Curry teaches expressly that “[a]n embedded accelerometer and a GPS receiver are included in the wireless device.” Ex. 1005, 3:6–7. Curry further teaches that “[w]hen a call is made or received using a mobile phone 106, the mobile phone client 110 can record location, speed and acceleration data from sensors *embedded* in the wireless device, such as a GPS sensor 114 and accelerometer 116.” *Id.* at 8:30–33 (emphasis added). This data is recorded in the phone’s local motion data cache 118 and is used by the phone’s user activity mode recognition program 120 to determine the “context of mobile phone use.” *Id.* at 8:30–9:11.

Based on Curry’s express disclosure, Dr. Michalson testifies that Curry focuses “on leveraging motion data obtained from sensors embedded

within the mobile phone (e.g., accelerometer 116, GPS receiver 114) to derive the driver safety information.” Ex. 1003 ¶ 146 (citing Ex. 1005, code (57), 2:1–27, 3:24–4:11, 7:5–22, 8:29–10:12, 13:20–16:6, Figs. 1, 3). As such, Dr. Michalson concludes that an ordinarily skilled artisan “would have understood there to be no need to use data from vehicle sensors to derive Curry’s driving information because its phone includes all of the necessary sensors, processing, and memory to derive driving information.” *Id.* ¶ 147.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

j. The Control Recitation

Claim 1 recites “wherein . . . the mobile telecommunications device is controlled by a downloaded application to control the mobile device to process the driving information to generate a driving score associated with a particular driver.” Ex. 1001, 31:66–32:2. Petitioner refers to this recitation as element “1.10” and maps Curry’s mobile phone client 110 to the recited application. Pet. 34. Petitioner argues that the client 110 “enables the phone to process sensor data from a driving period to derive information associated with a user’s driving behavior.” *Id.* (citing Ex. 1005, 7:5–29, 8:21–9:33, Fig. 1; Ex. 1003 ¶ 149). Petitioner argues that mobile phone 106 processes this derived information “both to determine a mode within which the phone should operate, and to generate a ‘driving safety score’ for the user that can be wirelessly communicated to third parties.” *Id.* at 35 (citing Ex. 1005, code (57), 3:1–4:6, 7:5–22, 8:29–12:18, 11:7–10, 13:3–19, 13:27–14:26, 16:13–18, 17:1–18:4, Figs. 1, 3, 4, 6; Ex. 1003 ¶ 150). Petitioner also argues

that Curry “describes calculating driving safety scores based on driving behavior information derived from sensor data, including ‘unsafe behaviors of talking-while-driving and texting-while-driving,’ which are ‘associated with different point penalties.’” *Id.* at 36 (citing Ex. 1005, 13:3–19).

Patent Owner argues that “Curry’s mobile device does not calculate scores.” Prelim. Resp. 22 (emphasis omitted). Patent Owner argues that, “although Curry’s mobile phone can detect talking or texting (estimating the context of mobile phone use), Curry’s mobile phone does not process data to assess abnormal driving behavior.” Prelim. Resp. 37 (citing Ex. 1005, 7:5–29, 9:5–11, 8:21–9:33). Rather, Patent Owner argues, “Curry specifically discloses that its driving safety data server 104 and driving safety user control and monitoring website at remote device 102, via its driving safety evaluation module (or driving safety score evaluation 212), ‘calculate corresponding safety scores.’” *Id.* at 22–23 (citing Ex. 1005, 7:5–17, Figs. 1, 2). Continuing, Patent Owner argues that the Petition fails to explain “how ‘adjust[ing] the related safety score’ as disclosed in Curry reads on ‘generat[ing] a driving score.’” *Id.* at 38 (alterations in original) (citing Pet. 35).

We agree with Patent Owner that Curry discloses that the driving safety evaluation module, which calculates safety scores, is “located on a web server” rather than on mobile phone 106. Ex. 1005, 12:19–20, 13:3–15, Fig. 2. However, Petitioner also maps the activity mode recognition module (which is part of client unit 110) *adjusting* the driver’s safety score based on previously collected motion data to the recited “generat[ing] a driving score.” Pet. 35 (quoting Ex. 1005, 11:7–10). We understand Petitioner’s argument to be that adjusting a score (based on driving information derived

from sensor data) is creating (that is, generating) a new driving score. We agree. Curry discloses that mobile phone client 110 “records the position, speed and acceleration data for a certain time period,” and activity mode recognition module 120 “determine[s] the context of a phone call to a selected user based on [the] collected motion data, and adjust[s] the related safety score for the user if a violation is identified.” Ex. 1005, 11:3–10.

Accordingly, for the foregoing reasons and on this preliminary record, Curry supports Petitioner’s contentions.

k. Conclusion

Accordingly, at this stage of the proceeding, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 1 would have been obvious in view of the combination of Curry and Rabu.

3. *Independent Claim 21*

Independent claim 21 recites a non-transitory computer readable medium with instructions stored thereon that, when executed, cause a mobile communications device to perform the functions recited in claim 1. Ex. 1001, 33:39–64. Claim 21 also recites that the mobile communications device presents a user interface on a display. *Id.* at 33:51. Petitioner relies on its showing made for claim 1 regarding the similar recitations of claim 21. Pet. 37. Petitioner argues that, because Curry discloses downloading mobile phone client 110 to mobile phone 106, Curry’s mobile phone 106 includes a non-transitory computer readable medium having instructions comprising a software application stored thereon. *Id.* at 37–38 (citing Ex. 1005, 2:22–27, 6:3–20; Ex. 1003 ¶ 153). Petitioner argues that

an ordinarily skilled artisan would understand Curry’s mobile phone 106 to include an interactive display through which the user interacts with mobile phone client 110. *Id.* at 38–39 (citing Ex. 1005, 8:5–27, 9:5–27, 10:5–26, 11:15–26, 13:20–29, 16:7–22, 21:15–17, 21:23–25, Fig. 1; Ex. 1003 ¶¶ 154–155).

Patent Owner argues that Petitioner fails to establish that Curry discloses the recited user interface for substantially the same reasons advanced for claim 1. Prelim. Resp. 41–44.

For the reasons set forth in Section II.E.2.c above regarding the User Interface Recitation of claim 1, we conclude that Petitioner’s contentions as to the recited “user interface” are sufficiently supported by the evidence of record to justify institution of review. Accordingly, at this stage of the proceeding, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 21 would have been obvious in view of the combination of Curry and Rabu.

4. Independent Claim 46

Independent claim 46 recites a mobile communications device as recited in claim 1, wherein the mobile communications device processes sensor data to determine vehicle acceleration events or braking events in accordance with threshold values. Ex. 1001, 35:65–36:32. Petitioner relies on its showing made for claim 1 regarding the similar recitations of claim 46. Pet. 37. Petitioner argues that an ordinarily skilled artisan would understand that Curry’s collected accelerometer data “includes a magnitude of acceleration (‘vehicle acceleration events’) and a magnitude of deceleration (‘vehicle braking events’),” which the mobile phone uses to

“precisely identify” the type of activity. *Id.* at 40 (emphasis omitted) (citing Ex. 1005, 17:1–23; Ex. 1003 ¶ 156). Petitioner argues that an ordinarily skilled artisan would understand that such identification of activity types “involves one or more threshold acceleration values.” *Id.* at 40–41 (citing Ex. 1005, 3:24–4:6, 17:1–23, 22:8–12, Fig. 5; Ex. 1003 ¶ 157).

Patent Owner does not contest Petitioner’s showing for claim 46 apart from its arguments advanced for claim 1, discussed above. Prelim. Resp. 41.

On this preliminary record, the cited portions of Curry and Dr. Michalson’s testimony support Petitioner’s contentions. Accordingly, at this stage of the proceeding, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 46 would have been obvious in view of the combination of Curry and Rabu.

5. Independent Claim 51

Independent claim 51 recites a non-transitory computer readable medium with instructions stored thereon that, when executed, cause a mobile communications device to perform the functions recited in claim 46. Ex. 1001, 36:56–37:20. Claim 51 also recites that the mobile communications device presents a user interface on a display (*id.* at 37:1) and that the determination of the start of the driving period is based on inputs from both the user interface and sensor data from the mobile telecommunications device sensor set (*id.* at 37:2–6). Petitioner relies on its showing made for claim 1 regarding the similar recitations of claim 51, its showing made for claim 21 regarding the non-transitory computer readable medium and user interface recitations, and its showing for claim 46

regarding vehicle acceleration events or braking events in accordance with threshold values. Pet. 37–41.

Patent Owner does not contest Petitioner’s showing for claim 51 apart from its arguments advanced for claims 1 and 21, discussed above. Prelim. Resp. 41–44.

For the reasons set forth in Sections II.E.2.c and II.E.3 above regarding the User Interface Recitation of claim 1 and claim 21, respectively, we conclude that Petitioner’s contentions as to the recited “user interface” are sufficiently supported by the evidence of record to justify institution of review. Accordingly, at this stage of the proceeding, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 51 would have been obvious in view of the combination of Curry and Rabu.

6. Independent Claim 54

Independent claim 54 recites the mobile telecommunications device of claim 1 with the only difference being that the mobile device is removably “affixed” to the vehicle rather than being removably “attached” to the vehicle. Ex. 1001, 37:34–38:14. Petitioner relies on its showing made for claim 1 regarding the similar recitations of claim 54. Pet. 37.

Patent Owner does not contest Petitioner’s showing for claim 54 apart from its arguments advanced for claim 1, discussed above. Prelim. Resp. 41.

For the reasons set forth in Section II.E.2 above regarding claim 1, we determine that Petitioner has established a reasonable likelihood of prevailing on its assertion that claim 54 would have been obvious in view of the combination of Curry and Rabu.

F. Asserted Obviousness Based on Curry, Rabu, and Berkobin

Petitioner argues that claim 55 would have been obvious in view of Curry, Rabu and Berkobin. Pet. 79–81. In support of its showing, Petitioner relies upon the Michalson Declaration. *Id.* (citing Ex. 1003). We have reviewed Petitioner’s assertions and supporting evidence. For the reasons discussed below, and based on the record before us, we determine that Petitioner demonstrates a reasonable likelihood of prevailing in showing that claim 55 would have been obvious in view of the combination of Curry, Rabu, and Berkobin.

Independent claim 55 recites the mobile telecommunications device of claim 54 and also recites that the processing of sensor data involves the use of a neural network on the mobile communications device. Ex. 1001, 38:15–44. Petitioner relies on its showing made for claim 54 regarding the similar recitations of claim 55. Pet. 81. Petitioner relies on Berkobin to teach using a neural network to process sensor data and evaluate driving information. *Id.* (citing Ex. 1010 ¶¶ 2, 31; Ex. 1003 ¶ 266). Petitioner argues that “[t]echniques for using artificial intelligence to evaluate driver information” and “the improvements offered by artificial intelligence” were “well-known by the Critical Date.” *Id.* at 79 (citing Ex. 1003 ¶¶ 261–262; Ex. 1010 ¶ 31; Ex. 1025 ¶ 47; Ex. 1014 ¶ 94). Petitioner argues that it would have been obvious to modify Curry’s mobile phone 106 “to employ artificial intelligence to identify unsafe driving behaviors from motion data recorded for a vehicle” to increase the accuracy of such identification. *Id.* at 80 (citing Ex. 1003 ¶¶ 262–263; Ex. 1005, 11:3–14).

Patent Owner has not yet substantively addressed this claim beyond the arguments discussed with respect to claim 1. *See* Prelim. Resp. 59. We

have reviewed Petitioner's contentions. Because we find Petitioner meets its burden for institution as to independent claim 1, we do not address independent claim 55 at this time.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented establishes a reasonable likelihood that Petitioner would prevail in showing that at least one of the challenged claims is unpatentable. At this preliminary stage, we have not made a final determination with respect to the patentability of the challenged claims or any underlying factual and legal issues. *See TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (noting that “there is a significant difference between a petitioner’s burden to establish a ‘reasonable likelihood of success’ at institution, and actually proving invalidity by a preponderance of the evidence at trial”).

Accordingly, *inter partes* review is instituted as to all challenged claims and all proposed grounds of unpatentability. *See* 37 C.F.R. § 42.108(a).

IV. ORDER

Accordingly, it is:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–55 of the ’879 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial, which commences on the entry date of this decision.

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