

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

UNITED SERVICES AUTOMOBILE ASSOCIATION,
Petitioner,

v.

AUTO TELEMATICS LTD.,
Patent Owner.

Case IPR2023-00768
Patent No. 10,192,369 B2

PATENT OWNER AUTO TELEMATICS LTD's
PATENT OWNER'S SUR-REPLY

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Patent Owner Auto Telematics Ltd. (“PO”) timely files this Sur-Reply in response to the Reply filed by United Services Automobile Association (“Petitioner”) for *Inter Partes* Review of claims 1-27 (the “Challenged Claims”) of Patent No. 10,192,369 B2 (“the ’369 patent”). PO demonstrates in this Sur-Reply that Petitioner has failed to prove the unpatentability of the Challenged Claims.

I. DETERMINING HOW A VEHICLE IS DRIVEN IS EXPLICIT IN THE CLAIMS BUT IS NOT DISCLOSED BY THE CITED ART

Regardless of Curry’s objective “to improve driver safety,” Curry’s phone does not determine *how* a vehicle is driven. *See* Pet. Reply, 1-2. Petitioner does not rebut that Curry’s phone does not process driving information associated with “how a vehicle is driven.” Instead, Petitioner dismisses this claim element as “inconsequential” as compared to “whether” a vehicle is driven. *Id.*, 7-8. This hand-waving over an explicit claim term is improper.

Curry is silent about its phone detecting and preventing unsafe driving behavior based on the processing of driving information related to actual *vehicle* behavior (*how* the vehicle is driven). While Petitioner suggests this is Curry’s intent, Petitioner fails to demonstrate that Curry discloses its *phone* detecting and preventing unsafe *vehicle* behavior. Although a driver’s use of a phone while driving

may be a *cause* of certain vehicle behavior, *user* behavior with a phone is not *vehicle* behavior. Petitioner fails to address the distinction.

The Board did not evaluate the claim element “how the vehicle is driven” in context of claim 1. *See* Inst. Decision, 24-31. The Board acknowledges that “how the vehicle is driven” is in context of “driving information, for example, video footage associated with how the vehicle is driven,” which “may be utilized ‘to determine the cause of an event such as an accident, to modify driver behaviour and/or to determine insurance premiums.’” *Id.*, 2-3 (citing Ex. 1001, 1:24-30). However, the Board did not address specific arguments regarding vehicle behavior, and the Board’s only other mentions of this limitation are quotations of claim element [1.7]. *See* Inst. Decision, 6, 24, 30.

When addressing Petitioner’s contentions, the Board discusses only “*whether* an associated vehicle is being driven” (*id.*, 24), “operating” and “activity” modes that do not address *how* the vehicle is driven (*id.*), or “violations of mobile phone use or unsafe driving behavior,” which is not “driving information associated with *how* the vehicle is driven.” *See id.*, 25-26. Petitioner’s claim mapping “based on user inputs (e.g., accepting a phone call, manually changing activity modes) and sensor data (e.g., ‘location, speed, and acceleration data’)” is quoted by the Board as “determin[ing]...*whether* an associated vehicle is being driven,” not *how*. *Id.*, 24.

The Board’s initial assessment of “[PO’s] reading of Curry to be too narrow” was not based on explicit disclosure in Curry. *Id.*, 29. While “Curry teaches...sensors...‘to monitor driving safety performance data,’” this data is raw sensor data used by Curry’s activity mode recognition module (in Curry’s *phone*) that says nothing about *vehicle* safety performance. *See id.*, 30; Ex. 1005, 7:5-15 (disclosing a “driving safety evaluation module” in Curry’s *server* that “perform[s] a statistical analysis” and “calculate[s] corresponding safety scores.”) The Board acknowledges that Curry monitors “behavior such as talking on or texting with mobile phones while driving.” Inst. Decision, 30. That this is determined “while driving” supports only Curry’s activity mode determination when talking or texting on a mobile phone, not “how the vehicle is driving.” PO respectfully submits that Petitioner (and, initially, the Board) misapprehended the teachings of Curry.

II. A DRIVING PERIOD MUST START AT THE BEGINNING OF A PERIOD IN WHICH THE VEHICLE IS BEING DRIVEN AND MUST INCLUDE THE ENTIRE PERIOD IN WHICH THE VEHICLE IS DRIVEN

“Determin[ing] the start of a driving period” is an important aspect of the claims “to derive driving information associated with how the vehicle is driven,” “for persistently storing” and “transiently storing driving information,” to store selected driving information (regarding, e.g., an event of significance) for “logging how a vehicle is being driven during the driving period,” to store driving information

associated with “an event of significance.” *See* Ex. 1001, 31:53-67, 4:50-52, 5:12-21, 16:62—17:14 (storing “derived driving information...in the storage buffer...unless a driving incident has been identified, in which case the associated...driving information is stored in the permanent storage...”). Yet, to map Curry’s random phone calls at arbitrary times to “the start of a driving period,” Petitioner incorrectly argues that “the claim leaves open the possibility of the driving period corresponding to the beginning, middle or end of, a vehicle’s operation.” Pet. Reply, 3. If the “driving period” for “process[ing] the sensor data...to derive driving information,” according to claim 1, began at the middle or end of a period in which the vehicle is driven, the purpose of the ’369 invention could not be accomplished. For example, if the driving period started at the middle or close to the end of the period in which the vehicle is being driven (as Petitioner alleges), but an accident occurs at the beginning when Petitioner’s processing has not started, the purpose of determining the cause of the accident would be thwarted. *See* Ex. 2001, ¶¶46-48, 53, 55, 60.

Regardless of the practical purpose of this claim language, Petitioner ignores common sense. A driving period is the entire period in which the vehicle is being driven by a driver. POR, 8, 35-36; Ex. 2001, ¶55. Contrary to Petitioner’s allegation, this is supported by the claim language and the specification. *See, e.g.*, Ex. 1001,

Abstract, FIG. 4a, 2:9-11, 3:1-2, 3:19-25 (describing a mobile device “arranged to log driving information...when that vehicle is being driven”).

According to the '369 specification,

[a] main purpose of the [mobile device], when arranged within a vehicle in motion,...is to monitor and process sensor data captured by the mobile device, to derive driving information associated with the moving automobile....[T]his driving information is subsequently used by the mobile device to determine if a driving incident or event has occurred. The term ‘driving incident’ as used within the present context may relate to an event such as a collision, near miss, dangerous driving, erratic driving or similar. Similarly, the driving information may be used as a means for monitoring a driver’s driving performance, and determining a driving characteristic, or user profile for the subject driver.

Ex. 1001, 13:36-49. It would thus make no sense to process and analyze sensor data only during a portion of the period in which the vehicle is being driven. The primary purpose of the invention would be frustrated. *See* Ex. 2001, ¶¶46-48, 53, 55.

Curry’s “multiple embodiments” do not disclose the claimed “driving period,” nor the start of it. Ex. 1005, 13:20—14:26 (FIG. 3), 16:7-22 (FIG. 4). Pet. Reply, 5. Curry may show the start of a phone call and/or recording period occurring at the time Curry’s phone determines the phone is in a certain activity mode, but these cited

portions do not determine the start of the claimed driving period. Ex. 2001, ¶¶106-109, 121.

For example, Curry's phone is limited to motion recording by collecting/caching raw sensor (GPS 314, accelerometer 316) data in the motion data cache 304 at the detection of an outgoing call 301 or an incoming call 303 by a motion recording activation 302 function. *See* Ex. 1005, FIG. 3, 13:20-31. Curry's phone does not determine an activity of driving until activity mode recognition 306, *after* motion recording is started and raw sensor data is cached. *Id.*, FIG. 3, 13:31—14:4. The dynamical call handling module 308 then determines whether to block a call based on the determined activity mode and user permission data sent from outside the phone to a database on the phone. *Id.*, 14:5-19. Then, “[d]ata from the motion data cache 304 and the activity mode recognition module 306 can be...sent back to the server 322” for further processing. *Id.*, 14:19-23. Curry at 14:23-26 merely discusses what occurs if the activity mode is not determined as driving. Thus, 13:20—14:26 of Curry does not disclose determining a start of a driving period or any processing regarding deriving driving information or vehicle behavior during a driving period. At best, Curry at 13:20—14:26 (FIG. 3) discloses taking an activity mode snapshot after a recording period is triggered by a phone call and subsequently handling the call based on the activity mode and a predetermined user permission. This is not the claimed driving period. Ex. 2001, ¶¶106-109.

Curry's disclosure at 16:7-22 (FIG. 4) fares no better. This section and figure disclose Curry's phone collecting/caching raw sensor data over a limited time period (e.g., 6 minutes) and *post-processing* the data merely to determine activity mode, similar to FIG. 3, for a call that was put through. Any "unsafe driving behaviors" (which are not specifically defined in this section of Curry) "can be penalized after the fact by deducting the driving safety score in the data server" (*not on Curry's phone*). Ex. 1005, 16:7-18. Apparently, Curry's phone can handle changes in activity mode during the FIG. 4 process, but there is no disclosure of Curry's phone determining the start of the claimed driving period or any processing to derive driving information (according to the '369 claims), such as vehicle behavior. *See id.*, 16:18-22. Ex. 2001, ¶¶103, 105-107, 119.

PO maintains that "starting the recording of sensor data upon receipt of a phone call in Curry is not 'start of a driving period.'" Pet. Reply, 6 (citing POPR, 35). Curry does not start its caching process with respect to actual driving, as required by the claims. The start of Curry's caching process instead relies on either a phone call or user input (Ex. 1005, 8:29—9:3, 13:22-26), but is untethered to driving. The claims, however, require determining the start of a driving period for processing sensor data to derive driving information. Ex. 1001, 31:53-55. Ex. 2001, ¶¶105-109.

The real issue for Petitioner is not whether PO's "characterization of Curry's recording process is unduly narrow" (it is not), but that Petitioner's mapping of Curry's features does not meet the claim elements. *See* Pet. Reply, 6. Petitioner addresses the start of a recording period, not the start of the claimed driving period. While motion recording in relation to phone calls may advance Curry's overall objective to improve driver safety, it says nothing about meeting the limitations of the '369 claims. *See id.*, 6-7. Curry's phone may activate a call handler *at some time while* driving, but Curry's phone does not have the ability to determine when driving starts or *how* the vehicle is driven. *See* Ex. 2001, ¶¶73-7-9, 107-109, 113.

Contrary to Petitioner's allegation, PO's characterization of the "start of a driving period" is not defeated by the '369 patent disclosing a registration period or other technical mechanism (such as a speed threshold) by which the mobile device determines the start of that driving period. *See* Pet. Reply, 6-7. *See, also*, Ex. 1001, 3:19-45, 18:63—19:16. The '369 patent discloses a computerized system with a processor (e.g., a smartphone) that needs a mechanism to know to start processing when the vehicle is moving. Petitioner ignores basic technology when alleging that, "[b]ecause the '369 patent contemplates embodiments in which a start of driving period occurs at a point in time after a user has already started to drive, the driving period is not limited to the entire time period of a vehicle being driven." Pet. Reply, 4. Determining the start of the driving period by the vehicle reaching a speed

threshold does not alter the purpose of the invention to monitor sensor data related to the entirety of the driving period and derive driving information related to how the vehicle is being driven. Ex. 2001, ¶¶105-109.

PO's expert properly rebuts Petitioner's interpretation and was correct that "the specifics of exactly when the driving period starts and exactly when it ends are not critical to the analysis or the driving period as perceived by a person of skill in the art." Pet. Reply, 4 (quoting Ex. 1084, 99:7-10). Mr. Wilson correctly provided his interpretation according to embodiments citing available technology (e.g., measuring a speed threshold), as would have been understood by a POSITA and as is supported in the '369 specification. Ex. 1001, 3:32-48. PO does not "unjustifiably limit[] the start of [1.6] to the start of driving" based on the patent describing a threshold speed that indicates the start of the driving period. *See* Pet. Reply, 6-7. Reaching a threshold speed at which a vehicle would be considered by a computer to be driving would have been within the understanding of a POSITA for a practical approximation of the start of the driving period, because that determination actually has a nexus to driving, whereas a phone call is untethered to the determination of an actual start of actual driving in every practical way. *See* Ex. 2001, ¶¶71, 79.

Even Curry generally understood the idea of measuring a speed that would indicate driving. *See, e.g.*, Ex. 1005, 16:26-28 (suggesting that "driving mode" can be recognized when speed is "greater than 15 miles/hour"). A key difference is that,

in the '369 patent, once the driving period has been determined to start, processing sensor data commences and continues “during the driving period,” according to claim 1, to derive driving information associated with “how a vehicle is driven,” regardless of any arbitrarily timed phone call occurring sometime during or outside of driving. Incoming or outgoing calls are not going to stop or restart a driving period in the '369 system, because it would defeat the purposes of the '369 patent to detect occurrence of a predetermined event, modify driver behavior, and determine insurance premiums. Ex. 1001, 1:27-30.

The '369 patent even acknowledges that phone calls may need to be handled during a driving period and discloses ways to do that without affecting the driving period or collection of data during the driving period. *See, e.g.*, Ex. 1001, 3:63—4:36 (“voice-call management may comprise temporarily disabling and/or diverting voice-calls incoming to the mobile device during a driving period”). Differing from Curry, a phone call does not and should not define the start of a driving period.

The claims of the '369 patent go well beyond Curry’s purpose and technology. For example, while Curry discloses collecting raw sensor data triggered by receipt or placement of a phone call, and continuing to collect the raw sensor data for some time thereafter unrelated to actual driving (e.g., for 6 minutes) (*see* Ex. 1005, FIG. 4), the '369 claims require “process[ing] the sensor data from the sensor set during the driving period to derive driving information associated with how the vehicle is

being driven.” Ex. 1001, 31:58-60. Logically, this includes the entire period in which the vehicle is driven. Ex. 2001, ¶¶73, 75, 111.

The claims must be read in light of the specification to include processing for the entire driving period. Ex. 1001, 16:48—18:32 (describing continuous sampling of sensor data, continuous capture of sensor data in FIFO storage buffers in continuously generated data files, and overwriting of older sampled data with newly sampled data, “unless a driving incident has been detected, in which case...all data related to the driving incident is stored in a long term protected storage 34b to safeguard it from being overwritten by newer data...”). The mobile device can detect when a driving period has terminated. *Id.*, 20:23-51 (“[T]he [mobile device] will continue to sample and record sensor data even once a driving incident has been detected, unless the [mobile device] detects that the driving period has terminated....If the driving period has terminated, the present method is terminated and the device stops recording sensor data.”).

The driving period of the ’369 claims is markedly different than Curry’s time period for recording data once a phone call is received. Curry’s monitoring period is not tethered to actual driving, nor does it disclose the claimed driving period. Rather, it is initiated at some arbitrary time based on the receipt or placement of a phone call or text message and ends not when driving has ceased, but rather at some arbitrary, predetermined time regardless of activity mode (e.g., when the vehicle may still be

driving or after driving has terminated). This is not the driving period claimed by the '369 patent. Ex. 2001, ¶¶74, 105-109.

III. PETITIONER IGNORES OR MISCHARACTERIZES DERIVED DRIVING INFORMATION

Claim 1 of the '369 patent recites that the mobile device must “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, 31:58-60. This “derived driving information” is a specific term defined in the specification to include more than raw sensor data and, when properly read in the claims as a whole, includes information regarding “how the vehicle is driven,” including “occurrence of a predetermined event” and vehicle behavior. *See, e.g.*, Ex. 1001, 1:22-30, 3:19-28, 14:4-9; 5:12-21 (“detailed driving information in the lead up to, and immediately following a predetermined event of significance”); 7:1-3 (“acceptable or unacceptable driving patterns”); 10:27-30 (comprising a driving score); 14:20-26 (“speed of impact, the g-forces the vehicle was subjected to during the collision, or any other information wherefrom the severity of the collision may be determined...”).

Petitioner continues to allege that Curry’s phone determines “‘driving behavior’ information...such as...speeding, abnormal acceleration, abnormal deceleration, and taking sharp turns.” Pet. Reply, 4, 8. However, there is no evidence

in Curry, let alone in Petitioner's citations to Curry (Ex. 1005, 3:24—4:6), that Curry's *phone* determines that information. There is no evidence that driving information concerning vehicle behavior is determined by anything other than Curry's server, if at all. This distinction is critical because the '369 claims require that the mobile device perform this processing. Petitioner mischaracterizes "driving information" as "driving behavior information" to inaccurately map "talking...or texting...while driving" to the claims; that is, what a user is doing on the phone instead of what a vehicle is determined to be doing by processing sensor data to derive driving information, as required by the claims. *See* Pet. Reply, 8.

Petitioner then alleges that Curry discloses "[o]ther types of driving information" including "a 'driver safety statistic...reported to' a data server;" but this "driver safety statistic" is determined outside of Curry's phone, by Curry's server, or is reported to Curry's server by Curry's Auto Insurance Companies 130 as "Driving Safety Scores." Pet. Reply, 10; *see* Ex. 1005, FIG. 1, 3:26-30, 4:1-6, 10:3-5. Curry's phone only reports to Curry's server "driving safety performance data," **which is defined by Curry as raw sensor data from motion data cache**. *See* Ex. 1005, FIG. 1, FIG. 3, 7:5-17, 9:1-3, 9:31-33, 13:1-2, 14:19-21 (disclosing that Curry's server performs statistical analysis on the raw sensor data uploaded from the motion data cache of Curry's mobile phone). *See also* Ex. 2001, ¶99. Indeed,

Petitioner appears to agree that “driving safety performance data” is merely raw sensor data. *See* Pet. Reply, 11-12.

Petitioner’s assertion that Curry’s phone processes a safety statistic and reports it to Curry’s server is unsupported. Petitioner support uses passive voice (*see, e.g.,* Pet. Reply, 10), making it wholly unclear what entity performs that function. Reading Curry as a whole, however, provides clarity that its server performs all statistical analysis/processing. *See, e.g.,* Ex. 1005, FIG. 2, where the same functions (*e.g.,* driving safety score evaluation 212) are never shown as residing on Curry’s phone.

Thus, Curry’s language that “[t]he safety statistic can be... ‘reported to’ a data server” does not “confirm[] location processing of the safety statistic on the mobile phone,” as Petitioner alleges. *See* Pet. Reply, 10-11. Rather, when Curry is read in its entirety, it becomes clear that this safety statistic is calculated by the Driving Safety User Control and Monitoring Web Site 102 (the “Website”). *See* Ex. 1005, FIG. 2 (illustrating raw sensor data sent by phone to Driving Safety Performance Database 208 on Website and then to Driving Safety Score Evaluation module 212 and Driving Safety Score Data module 214, also on Website, for determination of the statistic, followed by distribution to third parties 216). Ex. 2001, ¶¶68-69, 79, 113, 120. Neither the server nor the Website is the phone, and Petitioner’s conjecture that the phone *calculates* this statistic is misplaced. Additionally, it is irrelevant to

Petitioner's argument whether "Mr. Wilson admitted in deposition that the calculation and adjustment of [the driver safety statistic] is based on unsafe driving" because Mr. Wilson never opined in the deposition where the calculation and adjustment are made. *See* Pet. Reply, 11. Whether Mr. Wilson admitted that "the value is an example of driving information" is also irrelevant, because Petitioner has not provided sufficient proof that this value is calculated *by Curry's phone*. *See id.*

Petitioner erroneously appears to believe, if it maps the "same types of information in Curry to the driving information as those identified by [PO]," that Petitioner has met its burden to provide evidence of disclosure of the claim elements in Curry. Pet. Reply, 8. However, mapping only "the same types of information" does not meet Petitioner's burden when the information is processed by or sourced from Curry's server or another entity external to Curry's phone. **The claims require that the mobile device, not an external source, derive the driving information.** Petitioner, however, provides insufficient or non-existent proof that Curry's phone performs the claimed functions. While Curry's phone is a smartphone and, as such, can have certain processing capabilities, the specific processing alleged is not inherent in Curry's phone nor disclosed in Curry, and it is Petitioner's burden, *not* PO's, to prove otherwise. Petitioner has not done so.

Petitioner suggests that PO "ignores Curry's express disclosure of a motion data cache...for locally storing processed data." Pet. Reply, 5. PO does not ignore

this cache, but discusses it as merely storage for raw sensor data, not something that performs processing. *See* POR, 37-38; Ex. 2001, ¶¶113, 116-118, 121, 123, 155. A cache by its plain and ordinary meaning is nothing more than storage, a fact that Curry’s disclosure supports. Ex. 1005, 3:7-12, 3:24-30, 8:33—9:3, 13:29-31.

While Curry’s phone performs certain processing, it is not the claimed processing. Curry’s processing is limited to determining activity mode (walking, driving, standing still, etc.) based on raw sensor data, and handling phone calls by comparing static user permission data to the determined activity mode. Ex. 1005, FIGs. 1, 3. Ex. 2001, ¶¶67, 69, 72-73, 76, 117, 121, 127. Determining activity mode and handling phone calls is not the “processing” required by the claims to “derive driving information associated with how the vehicle is driven.” Ex. 1001, 31:58-60. Ex. 2001, ¶¶73, 75, 111.

IV. PETITIONER WALKS BACK ITS MOTIVATION TO COMBINE CURRY AND RABU

Petitioner walks back its original obviousness position, which relied on Rabu’s frequency analysis, to rebut PO’s assertion that a POSITA would have considered a Curry-Rabu combination to be too unreliable for practical use. Since filing its Petition, Petitioner has relied on Rabu’s frequency analysis of “motion data from its accelerometer” to combine Rabu’s “mode-shifting capabilities” with Curry to “restrict phone interactions” and “promote safe driving.” *See* Pet., 11-13. For

example, Petitioner repeatedly cites to Rabu's FIG. 8 and accompanying description, which are key parts of Rabu's "detecting docking status of a portable device using motion sensor data." *See* Pet. 12 (citing Ex. 1013, 8:13—10:42 multiple times, describing Rabu's "methods for operating a portable media device...includ[ing] determining an orientation angle...and a frequency spectrum associated with a motion of the [PMD]...[to] determine a motion status and select a mode of operation based on the motion status.").

Petitioner also repeatedly cites to Rabu at 3:1-10, disclosing that the "PMD can determine the holder motion status" and "can select a mode of operation based on...the holder motion status....By examining the frequency spectrum for a motion of an object...." *See* Pet., 12-16, 26, 31-32, 35 (citing Ex. 1013, 3:1:10).¹

¹ In instituting this IPR, the Board appeared to understand Petitioner to rely on Rabu's motion status being based on a frequency spectra analysis. *See, e.g.*, Inst. Decision, 31 ("...Petitioner has sufficiently explained that Rabu teaches the limitation "the mobile device is removably attached to the vehicle and vehicle is in use" because...(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."). *See also id.*, quoting Ex. 1013, 1:66—2:8 ("*Based on the determined frequency*

While Petitioner attempts to walk back its dependence on Rabu's frequency analysis for holder motion status to focus only on Rabu's holder status, Petitioner contradicts its Petition, which asserts that the combination provides "associated mode-shifting capabilities into Curry's phone to promote safe driving." Pet., 11. "Associated mode-shifting capabilities" rely on frequency analysis of motion status, and Petitioner *explicitly* relies on "relevant solutions within Rabu," "describ[ing] discerning phone usage context from accelerometer data indicating phone...motion status, and changing the phone's operating mode to account for that context." *Id.*, 13-14 (citing Ex. 1013, 3:1-10, 8:13—10:42, FIGs. 5, 7, 8).

Petitioner's Reply continues to rely on Rabu's frequency analysis by touting Curry-Rabu-Katayama's "multiple additional advantages" regarding "motion detection," including "adjustments to phone 106's operating modes." *See* Pet. Reply, 15-16 (citing Pet., 15-16; Ex. 1013, 2:8—3:10). While Petitioner certainly could have relied only on Rabu's holder status determination in its filings, it cannot now ignore the basis for its motivation to combine: Rabu's holder motion status determination.

spectrum, the PMD can determine whether it is in a moving vehicle...) (emphasis in original).

If Petitioner is permitted to walk back from its original position, its arguments to combine become even weaker. If all Petitioner needed was a reference providing holder status based on orientation angle, a POSITA would have found that Curry itself discloses at least an iPhone 3G smartphone capable of being held and knowing its orientation in different axes. Ex. 1005, 2:22-27, 3:6-7, 8:30-33, 13:28-29. Petitioner itself noticed that the same accelerometer is used in both Curry and Rabu, and that orientation and motion data can be used from the accelerometer to “determine both vehicle motion and docking status.” Pet. Reply, 16-17. Thus, it makes no sense for a POSITA to have looked to Rabu merely for an accelerometer’s orientation data, given Rabu’s reliability issues. *See id.*, 17 (citing Ex. 1085, 57:20—58:20). Petitioner does not cite Rabu to cure any of Curry’s other shortcomings.

The fact remains that Rabu is unreliable and provides its own evidence to substantiate such by incorporating the “Ogawa” reference. Ex. 1013, 7:31-59. PO’s expert clearly asserts that Rabu, with Ogawa’s technology as its base, presents reliability issues that would have deterred a POSITA from looking to Rabu. POR, 24-26, 36-39; Ex. 2001, ¶¶89-92, 110, 114-115.

Presumably recognizing the propriety of PO’s expert’s opinions, Petitioner now asserts that Rabu is only needed for its holder status (Rabu’s FIG. 7), not holder motion status (Rabu’s FIG. 8), and mischaracterizes Rabu to conflate these separate states. *See* Pet. Reply, 18. Yet, if only Rabu’s holder status was combined with

Curry, a POSITA could not have achieved the benefits that Petitioner suggests by leveraging Rabu's "associated mode-shifting capabilities into Curry's phone to promote safe driving," as Rabu's mode-shifting capabilities are based on Rabu's holder motion status. *See* Pet., 11; Ex. 1013, FIG. 8.

Petitioner then makes several baseless accusations, wrongfully accusing PO of alleging that Curry, Rabu, and Katayama are incompatible and inoperable, and that Curry is non-enabling. Pet. Reply, 17-20. PO, however, never raised those arguments. Rather, PO's argument boils down to one simple point: Curry-Rabu would have been unreliable and ineffective at curing Curry's shortcomings, and thus a POSITA would not have made the combination, let alone added Katayama.

Petitioner alleges that PO has "altered Rabu's express disclosure to support [PO's] narrative." Pet. Reply, 18-20. Yet, it is the other way around. While PO has remained steadfast, Petitioner has walked back its position regarding Rabu. While Petitioner has the burden to show how the references should fit together, PO is merely calling out Petitioner's ongoing contradiction in its obviousness analysis. If Petitioner does away with Rabu's frequency spectrum (*see id.*, 20-22), Petitioner could not achieve the "nuances" of Rabu's FIG. 5, which it strongly touted as a motivation to combine throughout these proceedings. *See* Pet., 13-14 (citing Ex. 1013, 3:1-10, 8:13—10:42, FIGs. 5, 7, 8), 16 (points 4, 5, citing Ex. 1013, 3:1-10).

V. KATAYAMA DOES NOT SATISFY THE MEMORY ELEMENTS OF CLAIMS 1, 26, AND 27

Petitioner has been clear that Katayama, directed to “a vehicle-mounted driving recorder that can facilitate an after-the-fact analysis on...situation data...,” is prohibitively different from the ’369 patent in that Katayama does not disclose a mobile telecommunications device (contrary to claim element [1.1]); has no downloadable application (contrary to claims 2, 3, 10, 11, 13, 14, and 18); and is akin to a black box recorder that requires data from vehicle sensors (contrary to claim element [1.9]). Ex. 1024, Abstract, [0009], [0038], [0042]-[0044], FIGs. 4-6; Ex. 2001, ¶139; *see also* Ex. 2001, ¶¶141-154. Additionally, Katayama’s device is not mobile because it is powered by “electric power supplied from a vehicle battery.” Ex. 1024, [0039]. *See* Ex. 2001, ¶¶140, 145-147.

Even if Katayama is combined with Curry-Rabu, the combination does not disclose “a long term memory for persistently storing driving information and a short term memory for transiently storing driving information” according to claim elements [1.10], [26.10], [27.11]. POR, 43, 64-65; Ex. 2001, ¶¶157-158. The ’369 patent discloses and claims a specific storage configuration so that the mobile device stores some driving information in persistent long term storage (protected storage 34b) and some (to be overwritten) in short term storage (buffer 34a). *See* Ex. 1001,

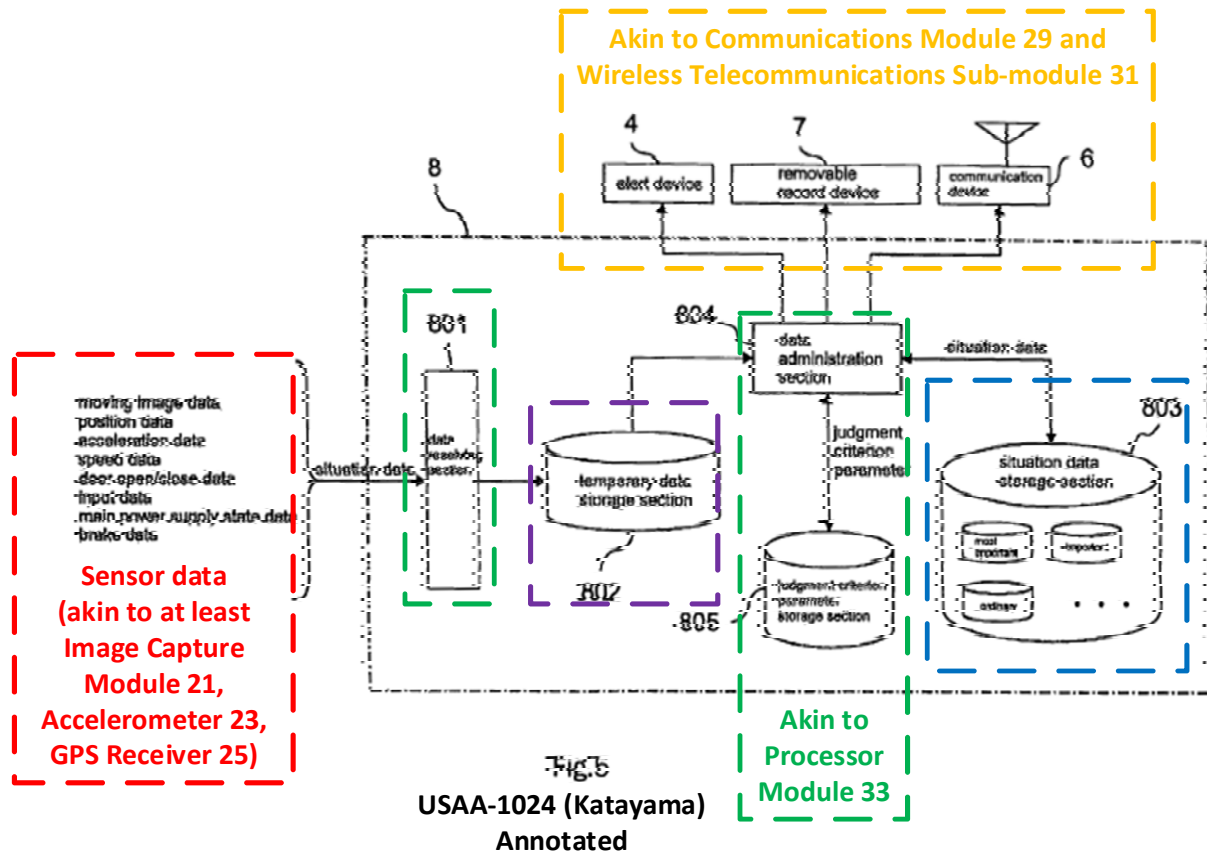
FIG. 3, 4:50-59, 5:12-16, 5:27-28, 6:41-44, 7:53—8:17, 17:8-14, 31:65—32:10, 34:17-29, 34:59—35:3. *See also* Ex. 2001, ¶¶156-158.

Katayama, however, merely *categorizes* situation data based on order of importance as determined by a learning function (Ex. 1024, FIG. 5, data administration section 804) accessing predetermined criteria (*id.*, judgment criterion parameter storage section 805) and configures its storage based on the learned categories of situation data. *Id.*, [0012], [0051]-[0054], [0057]-[0058]. Katayama's less important and most important data are not separately stored in long term versus short term storage. *See id.*, [0055], [0058], FIG. 5. Instead, both more important and less important data are stored in the *same* storage. *See id.*, FIG. 5, situation data storage section 803, [0055], [0057]. *See also* Ex. 2001, ¶¶158-162.

Petitioner's description of Katayama that identifies "situation data storage section 803" as "long term" storage is incorrect. Pet., 21. Rather, data marked less important (e.g., "ordinary") is stored in the same "situation data storage section 803" as data marked "most important." Ex. 1024, FIG. 5. Less important data does not remain in "temporary data storage section 802" but gets shifted to "situation data storage section 803," which Petitioner calls "long term," and such less important data may get erased from this so-called "long term storage" if storage space runs out. *See* Ex. 1024, [0016], [0055]; Pet., 21. *See also* Ex. 2001, ¶¶158-162.

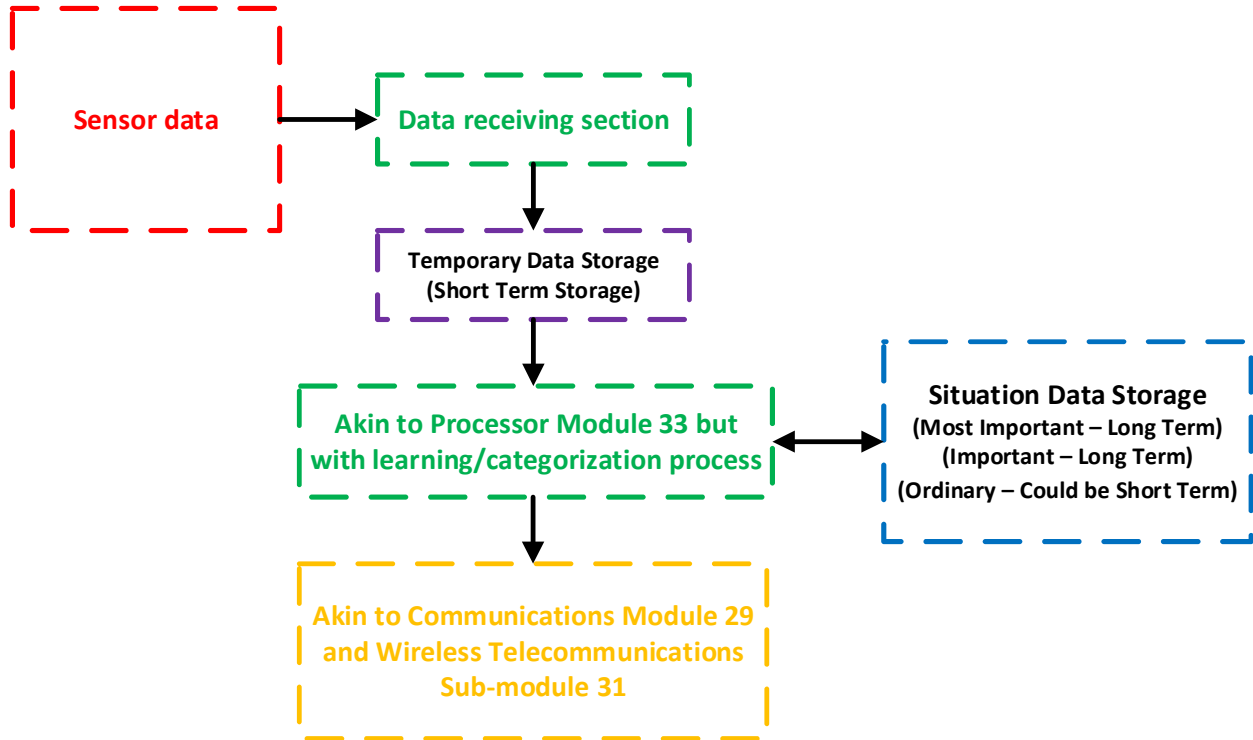
FIG. 3 of the '369 patent and FIG. 5 of Katayama are annotated and rearranged below to illustrate their differences using the same mappings that Petitioner applies.

Katayama's FIG. 5 is annotated as:



Ex. 1024, FIG. 5; [0044]-[0057]; Ex. 1001, FIG. 3, 15:41—18:10; Pet., 17-22.

Katayama's FIG. 5 can then be arranged as:



USAA-1024 (Katayama) FIG. 5 Rearranged

Ex. 1024, FIG. 5; [0044]-[0057]; Ex. 1001, FIG. 3, 15:41—18:10; Pet., 17-22.

FIG. 3 of the '369 patent is annotated as:

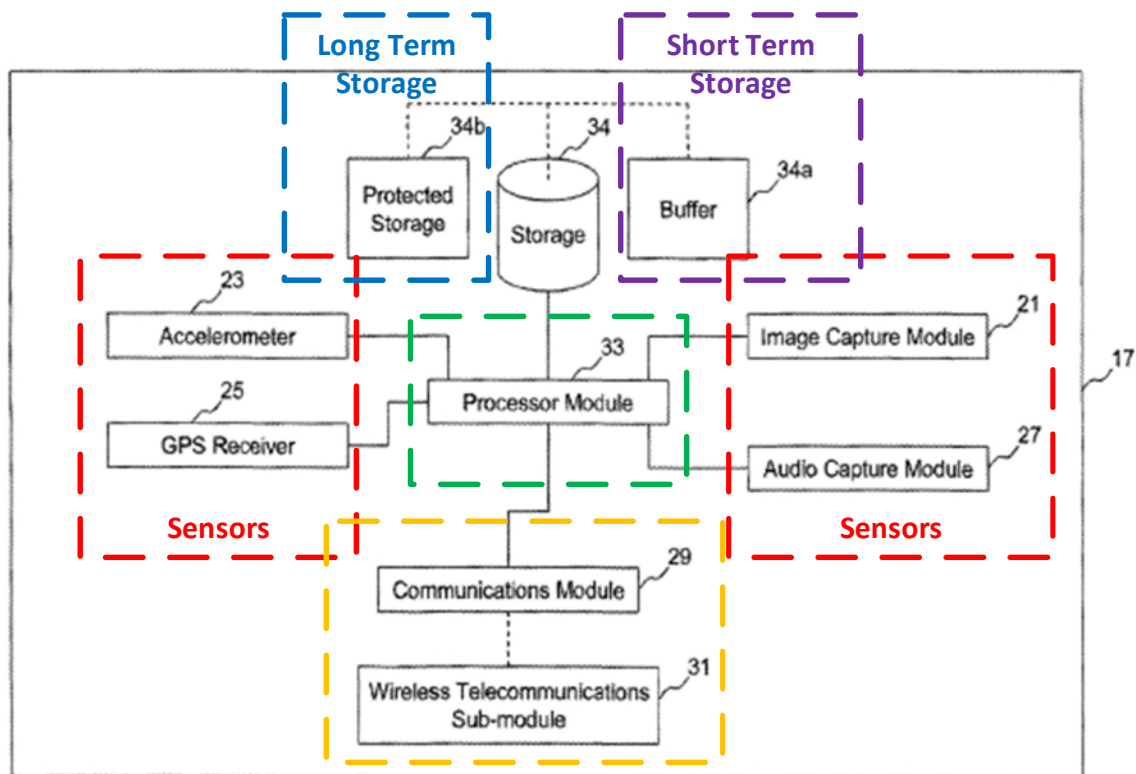
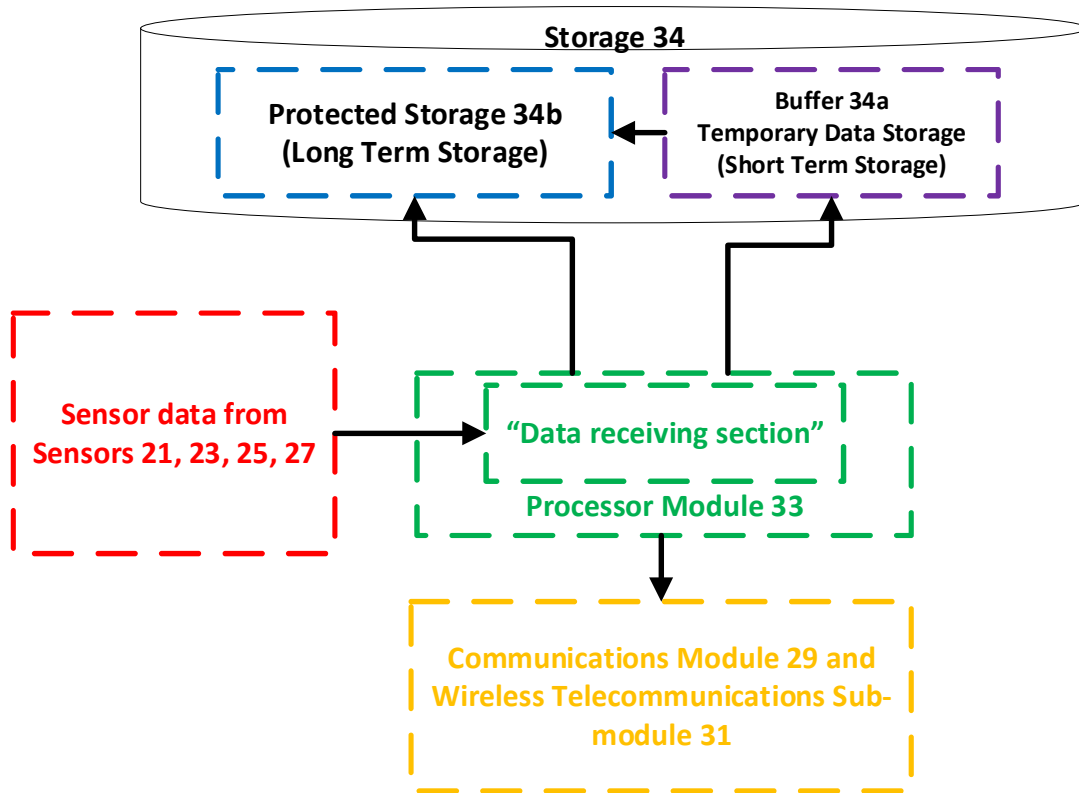


Fig. 3
'369 Patent FIG. 3 Annotated

Ex. 1001, FIG. 3, 15:41—18:10.

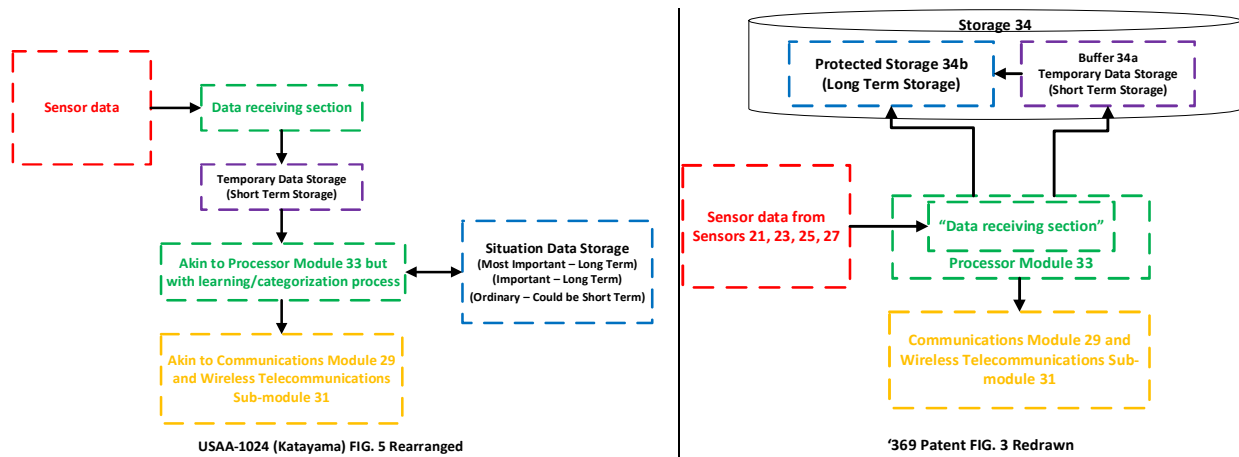
FIG. 3 of the '369 patent can then be rearranged as:



'369 Patent FIG. 3 Redrawn

Ex. 1001, FIG. 3, 15:41—18:10.

A side-by-side comparison of the annotations illustrates the differences between Katayama's storage configuration and the memory of the '369 patent.



In Katayama, all sensor data is first moved from “data receiving section 801” to “temporary data storage section 802,” which Petitioner maps to short term memory of the '369 patent. Pet., 23-25, 42-44; Ex. 1024, [0044]-[0045]. However, Katayama's “data administration section 804” applies “judgment criterion parameters” from “judgment criterion parameter storage section 805” in a learning process to categorize *all* sensor data in the “temporary data storage section 802,” based on importance, using the applied judgment criterion parameters. Ex. 1024, [0046]-[0049]. Even less important information (e.g., “ordinary” data) is moved to the “situation data storage section 803,” which Petitioner maps to long term memory of the '369 patent. Ex. 1024, FIG. 5, [0044], [0048], [0051]; Pet., 23-25, 42-44. *See* Ex. 2001, ¶¶158-162.

The difference between Katayama's "temporary data storage section 802" and "situation data storage section 803" is that the data in storage section 803 is categorized. *See* Ex. 1024, [0051]-[0054]. Thereafter, "situation data storage section 803" may overflow with too much data, and data categorized as "ordinary" may be overwritten. *Id.*, [0055]. Thus, Katayama, does not meet claim elements [1.10], [26.10], and [27.11] at least because it stores all data in the same location and categorizes it differently to "effectively utilize memory," but Katayama does not disclose a separate persistent memory. *Id.*, [0058]. *See* Ex. 2001, ¶¶158-162.

Katayama also fails to disclose that "short term memory receives driving information at a higher update rate..." of claim elements [1.11], [26.11], [27.12]. Nowhere in Petitioner's cited paragraphs of Katayama is driving information stored in Katayama's alleged "short term memory" updated at a different rate than that stored in the alleged "long term memory." *See* Ex. 1024, [0044]-[0046], [0051]. This is because there are not two different memories as required by the claims; rather, there is one memory wherein different data is categorized differently. *See also* Ex. 2001, ¶¶158-162.

VI. CONCLUSION

USAA's Petition fails as Petitioner has not shown that the claims of the '369 patent are obvious. Accordingly, PO respectfully requests that the Board find all challenged claims patentable.

June 11, 2024

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CERTIFICATE OF COMPLIANCE WITH 37 C.F.R. § 42.24

Pursuant to 37 C.F.R. § 42.24, Patent Owner Auto Telematics Ltd., certifies that, based on the word count of the word processing application used to prepare this paper, the number of words in this Patent Owner Sur-Reply is 5,600. This word count does not include the items that may be excluded from the count under 37 C.F.R. § 42.24(a) including the table of contents, table of authorities, list of exhibits and this certificate.

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), undersigned counsel certifies that on June 11, 2024, this paper – Patent Owner Auto Telematics Ltd.’s Response Pursuant to 37 C.F.R. §42.107 – was served via electronic mail upon the following counsel of record for Petitioner:

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