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Paper 11
Date: November 21, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TOYOTA MOTOR CORP. and KIA COPR.,
Petitioners,

v.

EMERGING AUTOMOTIVE LLC,
Patent Owner.

IPR2024-00785
Patent 10,407,026 B2

Before GEORGIANNA W. BRADEN, BARBARA A. PARVIS, and FRANCES L. IPPOLITO, *Administrative Patent Judges.*

BRADEN, *Administrative Patent Judge*.

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

I. INTRODUCTION

Toyota Motor Corp. and Kia Corp. (collectively "Petitioner") filed a Petition (Paper 1, "Pet.") requesting *inter partes* review of claims 1–7, 10–15, and 18–20 of U.S. Patent No. 10,407,026 B2 (Ex. 1001, "the '026 patent"). Emerging Automotive LLC ("Patent Owner") filed a Preliminary Response (Paper 7, "Prelim. Resp.").

With our authorization, Petitioner filed a Reply to Patent Owner's Preliminary Response (Paper 8, "Prelim. Reply") and Patent Owner filed a Sur-reply to Petitioner's Reply (Paper 10, "Prelim. Sur-reply") to address whether we should deny institution under 35 U.S.C. §§ 314(a), 325(d), and *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"). For reasons provided below, we decide not to invoke this discretion to deny institution.

Under 37 C.F.R. § 42.4(a), we have authority to determine whether to institute review. For the reasons explained below, we do not institute an *inter partes* review.

A. Real Parties in Interest

Petitioner identifies Toyota Motor Corp., Toyota Motor North America, Inc., and Toyota Motor Sales, U.S.A., Inc., Kia Corp., and Kia America Inc., as the real parties-in-interest. Pet. 72. Patent Owner identifies Emerging Automotive LLC as the real party-in-interest. Paper 4 (Patent Owner's Mandatory Disclosures), 2.

B. Related Matters

The parties indicate that the '026 patent has been asserted in the following district court litigation: (1) *Emerging Automotive LLC v. Toyota Motor North America, et al.*, 2:23-cv-00434 (E.D. Tex.); and (2) *Emerging Automotive LLC v. Kia Corp., et al.*, 2:23-cv-00437 (E.D. Tex.). Pet. 72;

Paper 4, 2. Petitioner further indicates that the cases have been consolidated for pretrial issues with the lead case being *Emerging Automotive LLC v. Kia Corp.*, No. 2:23-cv-00437-JRG (E.D. Tex.). Pet. 72.

C. The '026 patent

The '026 patent is titled "Vehicles and Cloud Systems for Assigning Temporary E-Keys to Access Use of a Vehicle" and it issued on September 10, 2019. Ex. 1001, codes (45), (54). It is a continuation of a U.S. Patent Application and relies on several other continuation and Continuation-In-Part applications, as well as two provisional applications the earliest of which was filed on April 22, 2011. *Id.* at codes (60), (63).

1. Written Description

The '026 patent "relates to systems and methods for generating and sharing electronic keys (e-Keys) with users and cloud-based processing systems." Ex. 1001, 1:54–56. In some embodiments, the '026 patent discloses providing vehicle access to individuals, including an owner or "guest driver," e.g., a friend, service person, or valet. *Id.* at 10:11–22. According to the '026 patent, this access can be provided by an electronic key, or e-key, which allows the holder of the e-key to use the vehicle. *Id.* at 10:23–25. The '026 patent discloses that an e-key may be sent from a vehicle owner to another person, such as a guest. *Id.* at 10:23–34. The e-key allows use of the vehicle, and can further include privileges for the user, including speed limits, geographic restrictions, amount of time, etc. *Id.*

The '026 patent describes creating profiles for users that have privileges set by an administrator. *Id.* at 16:56–65. For example, accounts for a driver may be created with "defined roles," which can "include a set of privileges," such as speed limit or geographic privileges. *Id.* at 38:39–49. In this way, according to the '026 patent, logins of user profiles can be

dynamically controlled. For example, "[a]dministrators can decide which settings are locked for specific logins or roles, which are open for the login user to toggle and which settings are to be enforced." *Id.* at 17:7–9. "[U]se of the vehicle can be restricted to predefined rules," including those based on the user profile. *Id.* at 22:13–14.

In one embodiment of the '026 patent, a vehicle owner or administrator may initiate transfer of e-keys to a user's device, such as a smartphone. *Id.* at 42:4–16, 43:65–44:6. The '026 patent discloses that an e-key may provide access to the vehicle, but otherwise have a "set[] level of privileges for the vehicle during the use of the electronic keys." *Id.* Via the privileges, "specific vehicle aspects are enabled for the vehicle." *Id.* at 42:25–26. The user can "then use the electronic Keys to use the vehicle in accordance with the privileges." *Id.* at 43:3–5.

One embodiment of the '026 patent is illustrated in Figure 29, which is reproduced below:

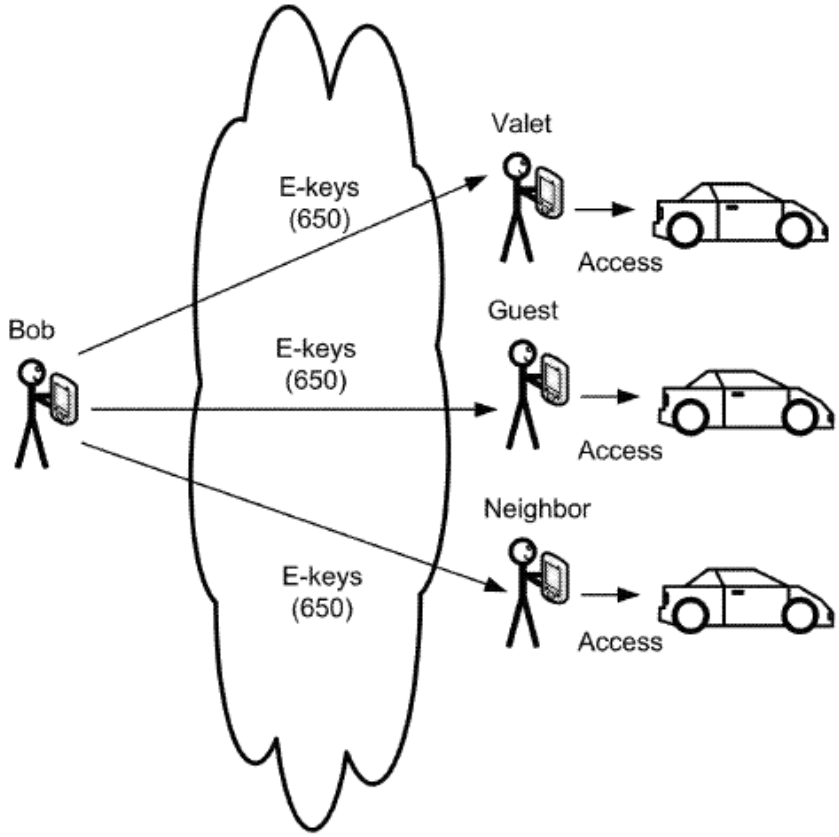


FIG. 29

Figure 29 of the ’026 patent, above, is an illustration showing the assignment of “e-keys for enabling access of a vehicle to a remote user.” *Id.* at 9:51–52. In Figure 29, vehicle owner Bob shares electronic keys 650 with users “valet,” “guest,” and “neighbor,” each having “various privilege settings.” *Id.* at 43:23–26. The ’026 patent explains that “[e]ach e-key, in one embodiment, will include a unique access code or substantially unique access code.” *Id.* at 43:38–39. “The unique generation of access codes enables each electronic keyed [sic] to be different for each user and each e-key can expire at any time set by a requesting user.” *Id.* at 43:46–49; *see also id.* at 46:4–6 (“Each unique code can then be used to associate those e-keys with the same vehicle, but assigned to different devices/people with

different privileges."). The unique access code "can be generated by a number generator, and [sic] alphanumeric random generator, in [sic] incremental number generator, or any other generation device that can generate codes that are unique or substantially unique." *Id.* at 45:52–55.

2. Illustrative Claim

As noted previously, Petitioner challenges claims 1–7, 10–15, and 18–20. Pet. 2. Claim 1 is the sole independent claim and is reproduced below with Petitioner's identifiers in brackets, which do not impact our analysis (*id.* at 17–35):

> 1. [1 preamble] A vehicle configured to communicate with a server of a cloud system to enable access to use the vehicle via one or more electronic keys, comprising,
>
> [1a] electronics of the vehicle;
>
> [1b] a subsystem of the vehicle for enabling unlocking of the vehicle, the subsystem being interfaced with the electronics;
>
> [1c] a subsystem of the vehicle for enabling starting of the vehicle for use of the vehicle; and
>
> [1d] communications circuitry of the vehicle interfaced with electronics of the vehicle, the communications circuitry being programmable to communicate with the server of the cloud system and communicate with a mobile device;
>
> [1e] wherein the communications circuitry of the vehicle is configured to receive a request from the mobile device for unlocking of the vehicle,
>
> [1f] the request from the mobile device including a unique access code obtained by the mobile device from the server to enable sending the request to the vehicle,
>
> [1g] wherein the unique access code is associated with privileges for use of the vehicle, the privileges are defined for the unique access code,

[1h] the vehicle is configured to receive information from the server to authenticate the request by the mobile device,

[1i] and if the request is authentic, and the mobile device is provided with data to enable an electronic key to use the vehicle and the electronics of the vehicle instructs the subsystem of the vehicle to enable unlocking of the vehicle and enable starting of the vehicle for use of the vehicle via the electronic key consistent with the privileges of the unique access code.

Ex. 1001, 51:61–52:25.

D. Asserted Challenges to Patentability and Evidence of Record

Petitioner challenges the patentability of claims 1–7, 10–15, and 18–20 of the '026 patent based on the following reference or combination of references:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–7, 11–12, 14, and 18–20	102	Zaid[1]
1–7, 11–12, 14, and 18–20	103	Zaid
10	103	Zaid, Patenaude[2]
13	103	Zaid, Gilbertson[3]
15	103	Zaid, Kleve[4]

Pet. 3. In support of its patentability challenge, Petitioner relies on, *inter alia*, the Declaration of Kevin C. Almeroth, Ph.D. ("Dr. Almeroth"). Ex. 1004. Patent Owner contests the challenges to patentability and supports

[1] U.S. Patent Application Publication No. 2011/0112969 A1, published May 12, 2011 (Ex. 1005) ("Zaid").
[2] U.S. Patent Application Publication No. 2006/0136106 A1, published June 22, 2006 (Ex. 1007) ("Patenaude").
[3] U.S. Patent Application Publication No. 2013/0113602 A1, published May 9, 2013 (Ex. 1008) ("Gilbertson").
[4] U.S. Patent Application Publication No. 2014/0129053 A1, published May 8, 2014 (Ex. 1006) ("Kleve").

its position with the Declaration of Sam Malek, Ph.D. ("Dr. Malek"). Ex. 2001.

II. PRELIMINARY MATTER

A. Claim Construction

A claim "shall be construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. [§] 282(b)." 37 C.F.R. § 42.100(b). Under that standard, the "words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc).

Petitioner states that express claim construction is unnecessary at this stage of the proceeding and that all terms are to given their plain and ordinary meaning. Pet. 22. Patent Owner does not address claim construction in its Preliminary Response.

Construction is needed only for those terms "that are in controversy, and only to the extent necessary to resolve the controversy." *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). There are no claim terms in controversy at this stage of the proceeding. Consequently, we need not construe any terms for our analysis.

B. Principles of Law Regarding Obviousness

1. Priority of Filing Date

"[A] patent application is entitled to the benefit of the filing date of an earlier filed application only if the disclosure of the earlier application provides support for the claims of the later application, as required by 35 U.S.C. § 112." *PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299,

1306 (Fed. Cir. 2008). "To satisfy the written description requirement [in § 112,] the disclosure of the prior application must 'convey with reasonable clarity to those skilled in the art that, as of the filing date sought, [the inventor] was in possession *of the invention*.'" *Id.* (alteration in original) (quoting *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991)).

Although the burden of proof for showing unpatentability remains on a petitioner, the patent owner may have a burden of production. A patent owner has the burden for showing it is entitled to priority. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.,* 800 F.3d 1375, 1379 (Fed. Cir. 2015) (discussing *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1326–27 (Fed. Cir. 2008)); *see also In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1376 (Fed. Cir. 2016) ("[A] patentee bears the burden of establishing that its claimed invention is entitled to an earlier priority date than an asserted prior art reference.").

2. Anticipation

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631(Fed. Cir. 1987). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831 (Fed. Cir. 1990).

3. Obviousness

A claim is unpatentable under 35 U.S.C. § 103 if "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said

subject matter pertains." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) where in evidence, objective evidence of non-obviousness.[5] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings, we must also "determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Whether a combination of prior art elements would have produced a predictable result is an issue we weigh in the ultimate determination of obviousness. *Id.* at 416–417.

In an *inter partes* review, the petitioner must show with particularity why each challenged claim is unpatentable. *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016); 37 C.F.R. § 42.104(b). The burden of persuasion never shifts to the patent owner. *Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

We analyze the challenges presented in the Petition in accordance with the above-stated principles.

C. Level of Ordinary Skill in the Art

In determining the level of ordinary skill in the art, various factors may be considered, including the "type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active

[5] At this stage of the proceeding, Patent Owner has not presented objective evidence of non-obviousness.

workers in the field." *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (quotation marks omitted). Furthermore, the prior art itself can reflect the appropriate level of ordinary skill in the art. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001).

Here, Petitioner asserts a person of ordinary skill in the art at the time of the invention of the '026 patent, "would have had at least a four-year undergraduate degree in electrical engineering, automotive engineering, or a closely related field and at least two years of experience in the field of access control systems, vehicle electronics, and/or cryptography." Pet. 16 (citing Ex. 1004 ¶¶ 69–75). Dr. Almeroth supports Petitioner's position and further testifies that "[a]dditional education could substitute for professional experience and vice versa." Ex. 1004 ¶ 72.

Patent Owner does not assert a different level of skill in the art at the time of the alleged invention and uses Petitioner's proposed level of skill. Prelim. Resp. 6–7 (citing Ex. 2001 ¶¶ 33–37).

For the purposes of this Decision, we too adopt Petitioner's level of ordinary skill in the art because it appears consistent with the problems addressed in the '026 Patent and the prior art of record.

D. Request for Discretionary Denial under 35 U.S.C. § 314(a)

Institution of *inter partes* review is discretionary. *Harmonic Inc. v. Avid Tech, Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (explaining that "the PTO is permitted, but never compelled, to institute an IPR proceeding"). In deciding whether to exercise discretion under § 314(a), the Board may consider events in other proceedings related to the same patent, either at the U.S. Patent and Trademark Office or in federal district courts. Consolidated Trial Practice Guide 58. Additionally, the Board's precedential order in *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, 5—6 (PTAB Mar. 20,

2020) (precedential) ("the *Fintiv* Order") identifies several factors for analyzing issues related to the Director's discretion to deny institution in view of related litigation, with the goal of balancing efficiency, fairness, and patent quality.

Patent Owner asserts that we should discretionarily deny the Petition under § 314(a). Prelim. Resp. 41–55; Sur-Reply 3–5. We decline to exercise our discretion under § 314(a) because, as explained in detail below, we deny institution for other reasons.

E. *Request for Discretionary Denial under 35 U.S.C. § 325(d)*

The Patent Office may deny institution under 35 U.S.C. § 325(d), which provides, in pertinent part, that "[i]n determining whether to institute or order a proceeding under this chapter . . . the Director may take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office." The Board also has discretion to institute proceedings pursuant to 35 U.S.C. § 314(a). *See, e.g.*, *General Plastic Industrial Co., Ltd. v. Canon Kabushiki Kaisha*, Case IPR2016-01357, slip op. at 8–10, 16–19 (PTAB Sept. 6, 2017) (Paper 19) (precedential).

Patent Owner asserts that we should discretionarily deny the Petition under § 325(d). Prelim. Resp. 12–22; Sur-Reply 5. We decline to exercise our discretion under § 325(d) because, as explained in detail below, we deny institution for other reasons.

III. ANALYSIS

A. Summary of References

1. Zaid (Ex. 1005)

Zaid is a U.S. patent application publication titled "Vehicle Access Control Services and Platform." Ex. 1005, code (54). Zaid discloses a car sharing system where renters use mobile devices to find vehicles, rent them for limited time periods, and use mobile devices to unlock and start the vehicle. *Id.* ¶¶ 67–69. During the rental, a mobile device receives an electronic key from a server and sends an encrypted vehicle reservation to the vehicle for access and use. *Id.* ¶ 70.

One embodiment of Zaid is shown in Figure 1, a block diagram, reproduced below. *Id.* ¶ 5.

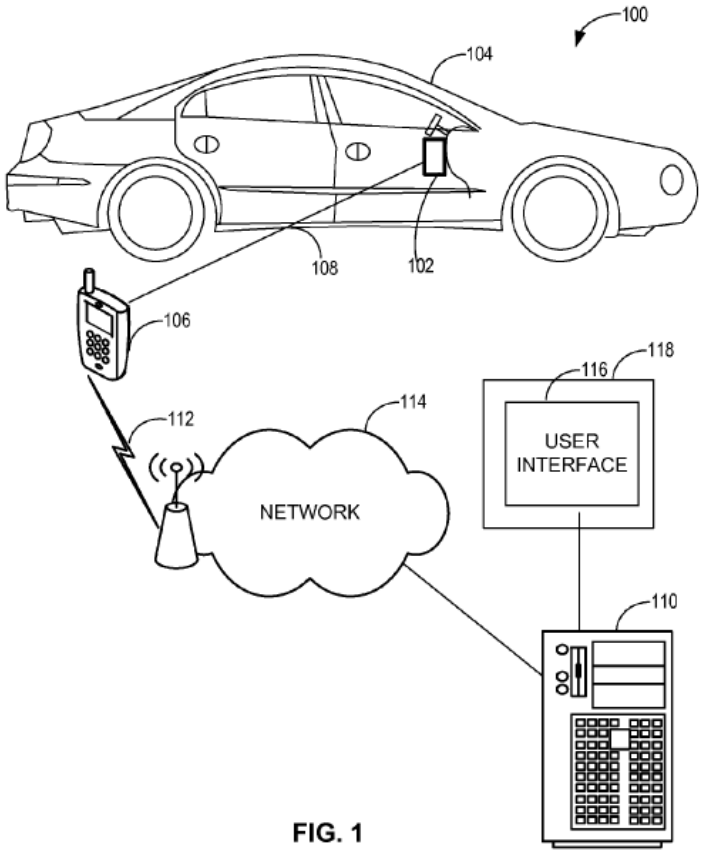


FIG. 1

Figure 1, above, is a block diagram illustrating an embodiment of system 100 for vehicle access control. *Id.* ¶ 5. Vehicle Access System 102 provide access to vehicle 104 when a vehicle reservation is received from wireless communication device 106 via communication link 108. *Id.* ¶ 75. Mobile system 102 also includes cellular network gateway 115 configured to facilitate communications between cellular network 114 and Internet 108. *Id.* The wireless communication device is connected to data network 114 via long-range wireless communication link 112, such as cellular communication link and/or satellite communication link. A vehicle reservation is received by wireless communication device 106 from central server 110 sitting on data network 114 via long-range wireless communication link 112 or a wired link. *Id.* ¶ 76.

Zaid's vehicle access component can be integrated into a "vehicle access kit," containing electronic components such as a microprocessor, memory, and a communication interface (WiFi or Bluetooth) for communicating to a remote server via the user's mobile device. *Id.* Fig. 2, ¶ 87. Additionally, a long-range communication function can be added to the communication interface to "act as a backup" in case communication via the user's mobile phone is unavailable. *Id.* ¶ 106.

Zaid discloses that server 110 interacts with a plurality of vehicle access control systems for providing access control to a plurality of vehicles, which may be geographically distributed across different locations. *Id.* ¶ 80. According to Zaid, a customer uses their wireless communication device 106 to search for and make a reservation for a vehicle, which is communicated to central server 110. *Id.* ¶¶ 76–77. Central server 110 sends a vehicle reservation to the reserved vehicle via wireless communication device 106. *Id.* The vehicle reservation is booked at the server 110 via a user interface

116 displayed on a computing device 118. *Id.* ¶ 80. In various embodiments in Zaid, computing device 118 can be any suitable computing device that has connection to central server 110 and can support user interface 116. *Id.*

Another embodiment of Zaid is shown in Figure 5, which is a flow chart reproduced below:

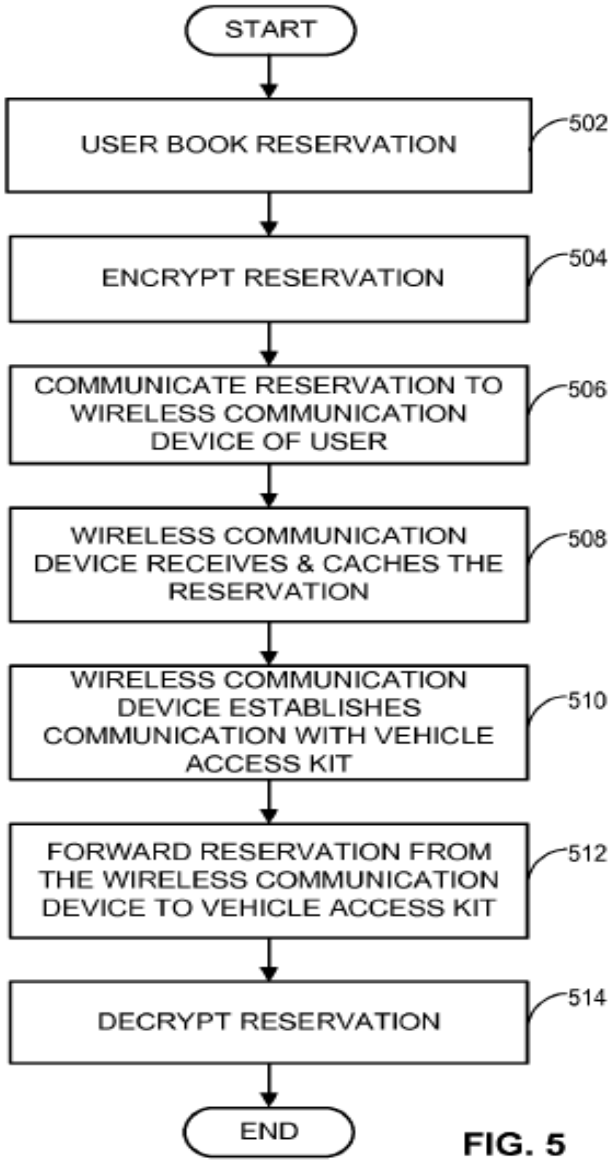


FIG. 5

Figure 5 illustrates an example of receiving a vehicle reservation request from a wireless communication device. *Id.* ¶ 125. Zaid explains that at

step 504, the vehicle reservation is encrypted. *Id.* Then, according to Zaid, the central server encrypts the message containing the vehicle reservation, where the encryption includes multiple layers. *Id.* Zaid discloses that the vehicle reservation is encrypted in (1) a first layer of encryption using a public key of the wireless communication device the vehicle reservation will be sent to, and (2) a second layer of encryption using a public key of a vehicle access kit that provides access control to the vehicle. *Id.* Zaid then discloses that the first layer of encryption can be decrypted using a private key of the wireless communication device, while the second layer of encryption can be decrypted using a private key of a vehicle access kit. *Id.*

Zaid discloses that at step 508, the wireless communication device receives and caches the reservation. *Id.* ¶ 125. In various embodiments, the wireless communication device decrypts the first layer of encryption encrypted using the public key of the wireless communication device using a locally stored private key of the wireless communication device. *Id.* In various embodiments, decryption is used to ensure and authenticate that the intended wireless communication device is receiving the vehicle reservation rather than one that intercepts the vehicle reservation. *Id.*

Zaid further discloses that vehicle access can be withdrawn when a vehicle reservation becomes invalid, such as when the time-out period elapses, when the reservation period ends, or when the vehicle is out of the communication range of the vehicle access control system. *Id.* ¶ 131.

2. Patenaude (Ex. 1007)

Patenaude is a U.S. patent application publication titled "Method of Determining and Predicting Entertainment Selections for Telematics Units." Ex. 1007, code (54). Patenaude "relates to providing entertainment in a vehicle by determining an entertainment selection profile." *Id.* ¶ 1.

Patenaude's method includes using telematics unit 120 to monitor entertainment selections in a mobile vehicle communication system (MVCS) 100. *Id.* ¶¶ 18, 42. To do this and as an example, an "algorithm searches the acquired data to determine if the FM radio is tuned to the same received FM frequency signal within a specified time frame each weekday for the specific user." *Id.* ¶ 70.

3. Gilbertson (Ex. 1008)

Gilbertson is a U.S. patent application publication titled "System, Method, and Apparatus for Creating and Maintaining Biometric Secure Safe Deposit Boxes, and Similar Containers and Facilities." Ex. 1008, code (54). Gilbertson discloses creating and maintaining biometric secure containers such as safe deposit boxes by requiring a person seeking access to the secure container or facility to have a biometric match with biometric data previously provided by that person stored in a database, before the person can be permitted access to the secure container or facility." *Id.* ¶ 3. Gilbertson further discloses providing a method for commissioning a collection of electronic locks where the method includes the steps of inserting the same electronic key into each of the locks and recording in the electronic key an internal code unique to that lock which identifies the lock and is needed to open the lock. The method proceeds by transferring the internal codes for each of the locks from the electronic key into a data processing machine. The data processing machine maintains the internal codes together with identifying codes for each lock of the collection. *Id.* ¶ 8. Gilbertson explains that a user can deactivate access to an electronic key. *Id.* ¶¶ 8, 14, claim 13.

4. Kleve (Ex. 1006)

Kleve is a U.S. patent application publication titled "Credential Check and Authorization Solution for Personal Vehicle Rental." Ex. 1006, code (54). Kleve discloses the use of an identifier from a vehicle rental administrative system that is configured to activate a vehicle during a prescribed rental period. *Id.* ¶ 7. Kleve also discloses that the identifier may enable a keyless drive-away of the vehicle if the user input corresponds to the identifier. *Id.*

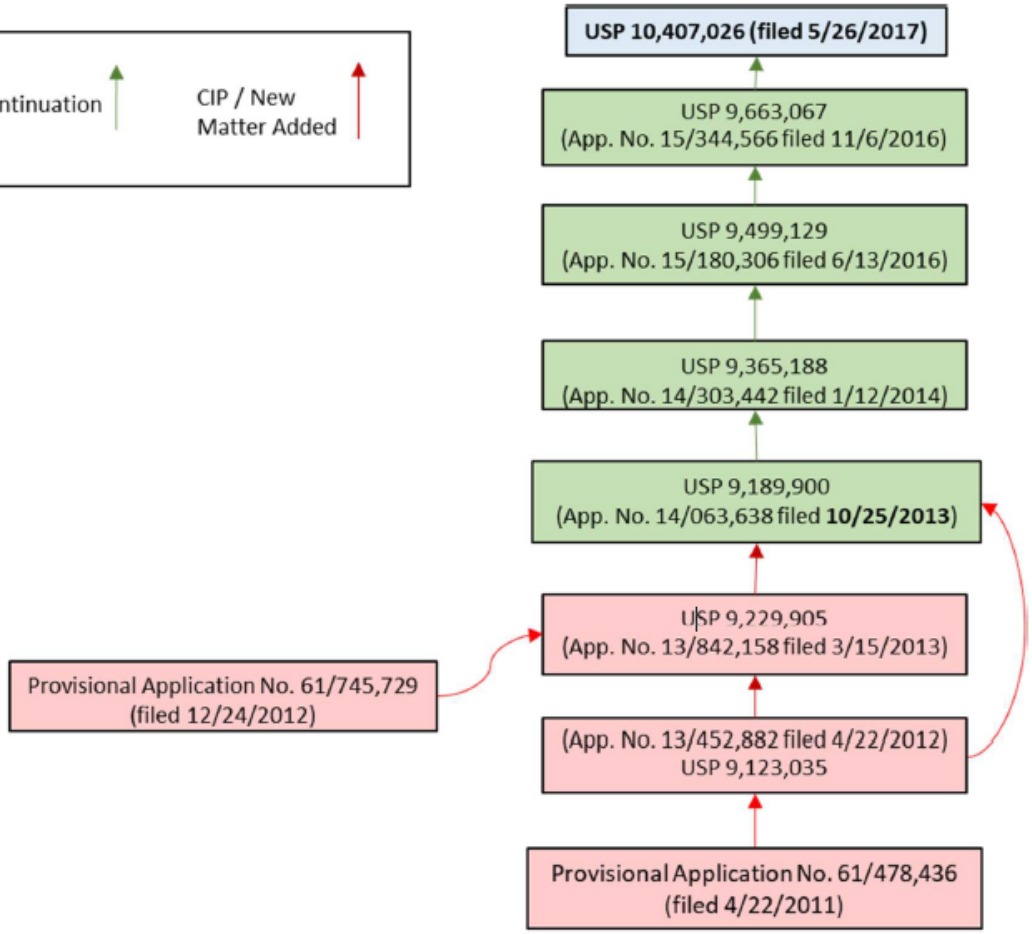
Kleve explains that during the rental term the vehicle computing system ("VCS") "may monitor the Temporary User's utilization of the vehicle including, but not limited to, renter verification, driving behavior, vehicle location, speed, fuel level, and other vehicle information requested by the vehicle owner." *Id.* ¶ 73. "The continuous monitoring of the Temporary Users behavior during the rental period may be transmitted to the server." *Id.* ¶ 76.

Kleve explains that "Temporary Users" use of the shared vehicle may be subject to "restriction limits [privileges] initially set by the Owner at the beginning of the rental term." *Id.* ¶ 43. According to Kleve, "[t]he restrictions may be based on, but not limited to, the owner's selection of parameters including, but not limited to, speed, global position coordinates, or load weight restrictions." *Id.* ¶ 40. Kleve specifies that during the rental term, the "control parameters" of the shared vehicle are "monitor[ed]" to determine whether a "restriction" has been exceeded. *Id.* ¶¶ 40, 53. When a restriction is exceeded, Kleve teaches that "the Temporary User and Owner may be notified." *Id.* ¶ 40. Kleve discloses that "an in-vehicle display message may be sent [from the server] to notify the Temporary User if a restriction limit has been exceeded." *Id.* ¶¶ 40, 53. Kleve states that the

"display message to alert the Temporary User of a restriction violation may be sent to the vehicle display information console."

B. Priority of the '026 Patent Claims and the Availability of Kleve as Prior Art

The '026 patent was filed on May 26, 2017 as a continuation of U.S. Patent Application No. 15/344,566 ("the '566 Application"). The '566 patent application was filed on Nov. 6, 2016, and later issued as U.S. Patent No. 9,663,067 B1. *See* Ex. 1001, code (63), 1:7–13. The '026 patent also claims priority to U.S. Provisional Patent Application No. 61/745,729 ("the '729 Provisional") filed on December 24, 2012 and U.S. Provisional Patent Application No. 61/478,436 ("the '436 Provisional") filed on Apr. 22, 2011. *Id.* Additionally, the '026 patent claims priority to several other U.S. continuation applications and continuation-in-part applications. *Id.* For convenience, Petitioner's priority flow chart is provided below.



Pet. 9. Petitioner's priority flow chart on page 9 of the Petition shows the priority applications listed on the face of the '026 patent and marks, with a red arrow, applications that Petitioner alleges added new matter. *Id.*

Petitioner argues that the challenged claims are entitled only to an effective filing date of October 25, 2013, because that is the first time subject matter regarding "e-keys" was added to a related application, specifically CIP App. No. 14/063,638. Pet. 11 (citing Exs. 1029, 1038). Petitioner also indicates Kleve is prior art under § 102(e), because it was filed Nov. 7, 2012, and published May 8, 2014. *Id.* at 2.

Patent Owner agrees that the '026 patent is entitled to a priority date of at least Oct. 25, 2013. Prelim. Resp. 55–56. Patent Owner does not assert that Zaid, Patenaude, or Gilbertson fail to qualify as prior art. Patent Owner,

however, asserts that "Kleve is not 'prior art consisting of patents or printed publications' as required by § 311(b)." *Id*. at 56. Rather, Patent Owner argues that Kleve is a patent publication, is not prior art consisting of a patent, and Petitioner have not shown Kleve was publicly available before its publication date of May 8, 2014. *Id.* (citing Ex. 1006, 1).

As discussed in detail below, we deny institution. Accordingly, we need not address the status of Kleve as an applicable prior art reference in this case.

C. Claims 1–7, 11–12, 14, and 18–20 Alleged Anticipated by or Rendered Obvious by Zaid

Petitioner contends that Zaid discloses every limitation of claims 1–7, 11–12, 14, and 18–20. Pet. 19–44. Patent Owner disagrees. Prelim. Resp. 34–47. Patent Owner specifically challenges whether Petitioner has shown that Zaid discloses or teaches the following limitations: (1[e]) wherein the communications circuitry of the vehicle is configured to receive a request from the mobile device for unlocking of the vehicle; (1[f]) the request from the mobile device including a unique access code obtained by the mobile device from the server to enable sending the request to the vehicle; (1[g]) wherein the unique access code is associated with privileges for use of the vehicle, the privileges are defined for the unique access code and {1[h]) the vehicle is configured to receive information from the server to authenticate the request by the mobile device. The limitation regarding unlocking the vehicle is dispositive, so we need only address that in our analysis.

1. Analysis of Independent Claim 1

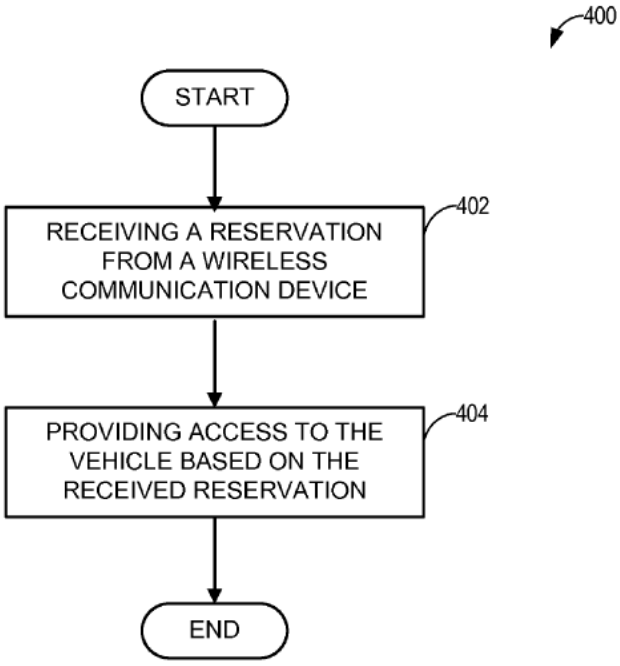
a) Limitations [1e]

Claim 1 recites the steps:

> [1e] wherein the communications circuitry of the vehicle is configured to receive a request from the mobile device for unlocking of the vehicle;

Ex. 1001, 33:20–26.

For this limitation, Petitioner asserts that Zaid's vehicle access kit receives unlocking requests via its wireless device communication interface 202. Pet. 27. According to Petitioner, these "vehicle reservations," which are sent from the user's "wireless communication device," provide a customer with vehicle access. *Id.* (citing Ex. 1005 ¶ 67 ("access to the vehicle is provided when a vehicle reservation is received from the wireless communication device"), ¶ 124, Fig. 4, Fig. 6). Referring to Zaid's Figure 4, which is a flow diagram reproduced below, Petitioner further asserts that Zaid's vehicle reservation includes a time period when a user is authorized to unlock a vehicle. *Id.*



Petitioner asserts that, as shown in Figure 4 (above), during this time period, the user is granted access to the vehicle by unlocking. *Id.* at 27–28 (citing Ex. 1005 ¶ 69 ("the vehicle reservation includes a reservation for a specified time period."); *see also id.* ¶ 124, ¶ 129 ("granting access includes opening the vehicle door"), ¶ 90 ("a vehicle access control component 206 [] provides access to the vehicle by for example unlocking the vehicle door"), Fig. 4, Fig. 6). Therefore, Petitioner concludes that Zaid's communications circuitry receives requests from the mobile device for unlocking of the vehicle. *Id.* at 28 (citing Ex. 1004 ¶ 111).

Patent Owner disputes Petitioner's position and contends that a reservation is not a request for unlocking a vehicle. Prelim. Resp. 23–25. According Patent Owner, Petitioners conflate Zaid's "reservation," which authorizes a user to thereafter unlock a vehicle, with an actual request for unlocking of the vehicle. *Id.* at 23. Patent Owner argues that the Petition relies only on Zaid's "vehicle reservation" to meet the limitation of "request . . . for unlocking of the vehicle," but Zaid's "reservation" is just

merely a means to reserve the vehicle. *Id.* (citing Pet. 27–28; Ex. 2001 ¶¶ 45–46; Ex. 1005 ¶ 124, Fig. 4).

Patent Owner further argues that Zaid's disclosure explains that a user may book a reservation for a vehicle at a central server and only "once vehicle access is provided, the user can send commands from the wireless communication device to a vehicle access control component coupled to the vehicle to accurate [sic, actuate] various vehicle functionalities.'" *Id.* at 24 (citing Ex. 1005 ¶ 125, code (57) ("a vehicle reservation from a wireless communication device is received [by a vehicle], the vehicle reservation is authenticated, and access to the vehicle is provided after authenticating the vehicle reservation")). Therefore, Patent Owner asserts that a reservation merely provides a user access to the vehicle for sending control commands for e.g., unlocking the vehicle and does not meet the disputed limitation. *Id.* (citing Ex. 2001 ¶ 49).

Patent Owner further contends that it would be counterintuitive for Zaid's reservation information to include a command to unlock a vehicle's doors because unlocking a car upon receiving a reservation would result in safety and security concerns. *Id.* at 25 (citing Ex. 2001 ¶ 50). According to Patent Owner, "a reservation could be in the future and immediate unlocking would allow the holder of the reservation unauthorized (early) access" and "[u]nlocking the door while the user steps away would present opportunities for theft." *Id.* Patent Owner then argues that a person of ordinary skill in the would not have modified Zaid's reservation to include a request for unlocking of a vehicle and it would not have been obvious to make such a modification. *Id.*

We agree with Patent Owner that Petitioner reads Zaid's reservation for a vehicle as providing "access" to said vehicle too broadly. Zaid

discloses that (1) when a reservation is received, (2) vehicle access is provided, and (3) then "once vehicle access is provided, the user can send commands from the wireless communication device to a vehicle access control component coupled to the vehicle to accurate various vehicle functionalities, such as open the vehicle door, tum on the engine, and/or otherwise allow the user to use the vehicle." Ex. 1005 ¶ 124. We understand this disclosure to mean that Zaid provides a separate command for unlocking the doors, which occurs after the vehicle is reserved. *See id.* Thus, we find that reservation request is different than and separate from the request for unlocking the reserved vehicle. Petitioner, however, does not identify Zaid's command for unlocking the doors as the claimed "request" for unlocking the vehicle. *See* Pet. 29–31.

Additionally, Petitioner specifically argues that Zaid discloses this limitation. Pet. 28. Petitioner does not argue that this limitation is rendered obvious by Zaid. *Id.* Yet, even if Petitioner were to argue that this limitation would have been obvious to an ordinarily skilled artisan in view of Zaid, we would disagree because Petitioner has failed to show how the unlocking step would have been obvious in view of a reservation. This is especially true given that Zaid identifies these as two different steps in its process. *See* Ex. 1005 ¶ 124. We specifically credit the testimony of Dr. Malek that a "POSITA would understand from Zaid that any request for unlocking of a vehicle would be separate from and only occur after the vehicle is reserved" and that "Zaid further discloses that instructions for the car function, such as unlocking doors, is received through direct commands—not the separate request for reservation." *See* Ex. 2001 ¶ 48 (citing Ex. 1005 ¶¶ 100, 124).

Thus, after review of the arguments and evidence, we find that Petitioner has not provided sufficient explanation and supporting evidence that Zaid discloses or teaches "a request from the mobile device for unlocking of the vehicle" as required by limitation [1e]. Accordingly, based on the current record, we determine that Petitioner has failed to establish a reasonable likelihood that it would prevail in showing that independent claim 1 is anticipated by or rendered obvious in view of Zaid.

2. Analysis of Claims 2–7, 11–12, 14, and 18–20

Claims 2–7, 11–12, 14, and 18–20 depend from claim 1. Ex. 1001, 52:26–54:30. Petitioner asserts that dependent claims 2–7, 11–12, 14, and 18–20 of the '026 patent are anticipated by or rendered obvious by Zaid. Pet. 37–52.

For this challenge, Patent Owner relies on the same arguments presented for claim 1. Prelim. Resp. 22–41. For the reason discussed above, Patent Owner's arguments are better supported. Petitioner does not provide any additional arguments and supporting evidence sufficient to establish a reasonable likelihood that Petitioner would prevail in showing that Zaid anticipates or renders obvious claims 2–7, 11–12, 14, and 18–20. *See* Pet. 37–52.

D. Alleged Obviousness of Claim 10 in View of Zaid and Patenaude

Petitioner contends the combined teachings of Zaid and Patenaude would have rendered obvious claim 10. Pet. 53–57. For this challenge, Patent Owner relies on the same arguments presented for claim 1 in view of Zaid alone, specifically stating that Patenaude does not cure the deficiencies of Zaid. Prelim. Resp. 40–41. For the reason discussed above, Patent

Owner's arguments are better supported. Petitioner does not provide any additional arguments and supporting evidence sufficient to establish a reasonable likelihood that Petitioner would prevail in showing that claim 10 would have been obvious in view of the combined teachings of Zaid and Patenaude.

E. Alleged Obviousness of Claim 13 in View of Zaid and Gilbertson

Petitioner contends the combined teachings of Zaid and Gilbertson would have rendered obvious claim 13. Pet. 57–63. For this challenge, Patent Owner relies on the same arguments presented for claim 1 in view of Zaid alone, specifically stating that Gilbertson does not cure the deficiencies of Zaid. Prelim. Resp. 40–41. For the reason discussed above, Patent Owner's arguments are better supported. Petitioner does not provide any additional arguments and supporting evidence sufficient to establish a reasonable likelihood that Petitioner would prevail in showing that claim 13 would have been obvious in view of the combined teachings of Zaid and Gilbertson.

F. Alleged Obviousness of Claim 15 in View of Zaid and Kleve

Petitioner contends the combined teachings of Zaid and Kleve would have rendered obvious claim 15. Pet. 63–68. For this challenge, Patent Owner relies on the same arguments presented for claim 1 in view of Zaid alone, specifically stating that Kleve does not cure the deficiencies of Zaid. Prelim. Resp. 40–41. For the reason discussed above, Patent Owner's arguments are better supported. Petitioner does not provide any additional arguments and supporting evidence sufficient to establish a reasonable likelihood that Petitioner would prevail in showing that claim 15 would have been obvious in view of the combined teachings of Zaid and Kleve.

IV. CONCLUSION

After considering the Petition, Preliminary Response, Preliminary Reply, Preliminary Sur-reply, and accompanying exhibits and testimony, we determine Petitioner has failed to establish a reasonable likelihood that it would prevail in challenging at least one of claims 1–7, 10–15, and 18–20 of the '026 patent as unpatentable under the challenges presented in the Petition. Accordingly, on this record, we decline to institute an *inter partes* review of claims 1–7, 10–15, and 18–20 on any challenge presented in the Petition with respect to these claims. *See* 37 C.F.R. § 42.108(a); Consolidated Trial Practice Guide 64.

V. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is denied and no *inter partes* review is instituted in this proceeding.

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